STATE OF TEXAS
OIL AND HAZARDOUS SUBSTANCES SPILL
CONTINGENCY PLAN
NOVEMBER, 1997

Field Operations Division,
Texas Natural Resource Conservation Commission

Prepared by
Field Operations Division

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Acknowledgments

The TNRCC wishes to acknowledge the substantial contributions of staff with the agency and within the Railroad Commission of Texas and the Texas General Land Office in the compilation and content review of this publication. Special thanks are extented to the following individuals:

Mr. David Barker, TNRCC Emergency Response Unit
Mr. John Tintera, Railroad Commission of Texas
Mr. Harold Craig, Railroad Commission of Texas
Ms. Ingrid Hansen, Texas General Land Office
Ms. Leah Tunnell, Texas General Land Office

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EMERGENCY ASSISTANCE AND ADVICE

State of Texas — 24-Hour Phone

State of Texas Environmental Emergency Hot Line 1-800-832-8224 (24-hour)
for reporting spills to the TNRCC and
coastal oil spills to the GLO and RRC

Texas Natural Resource Conservation Commission (TNRCC)

TNRCC Emergency Response Team 512/239-2507 (24-hour)
Oil and Hazardous Substance Spills 1-800-832-8224 (24-hour)

General Land Office (GLO) 1-800-832-8224 (24-hour)
Coastal Oil Spills

Railroad Commission of Texas (RRC) 512/463-6788 (24-hour)
Natural Gas and Hazardous Liquid Pipeline Emergencies
LPG (Liquified Petroleum Gas) Emergencies
Crude Oil Spills

Texas Parks and Wildlife Department (TPWD) 512/389-4848 (24-hour)

Texas Department of Health (TDH) 512/458-7460 (24-hour)
Radiation Emergency Reporting

Texas Poison Center 1-800-POISON-1 (24-hr)

Governor's Division of Emergency Management (DEM) 512/424-2000 (24-hour)
Communications Center 512/424-2277 (24-hour)

National

National Response Center (NRC)—24-hour numbers
for federal spill reporting 1-800-424-8802

for reporting FREON releases to federal government 1-800-296-1996

U.S. Environmental Protection Agency (EPA) 866-372-7745
Region VI—Dallas, Texas
24-hour spill reporting hotline

National Weather Service 817/334-3401

CHEMTREC (Chemical Transportation Emergency Center) 800/424-9300

CHLOREP (Chlorine incidents) 800/424-9300

NACA Pesticides Safety Team Network 800/424-9300
Chemical Referral Center

Preface

The State of Texas Oil and Hazardous Substances Spill Contingency Plan is provided to strengthen and improve the response mechanism for discharges or spills of oil and hazardous substances within the territorial limits of the state.

Primary emphasis has been placed on spills that require immediate removal actions under the state's supervision in accordance with state statutes, the Oil Pollution Act of 1990, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Texas Water Code, the Oil Spill Prevention and Control Act of 1991 (OSPRA), the Texas Health and Safety Code, and the Federal Response program.

This plan provides general guidance for a coordinated response to oil and hazardous substance spills and outlines notification procedures by which spills shall be reported to State and federal agencies. It is applicable statewide and provides a ready reference for generalized initial response actions as well as rules promulgated by the various state agencies.

It is important to note that this State of Texas Oil and Hazardous Substances Spill Contingency Plan will not take the place of detailed emergency management plans or reduce requirements for spill contingency and response plans as required by the Texas Disaster Act of 1975, Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Oil Spill Prevention and Response Act of 1991 (OSPRA), and rules promulgated by the various state agencies.

Response to a spill in the absence of a plan may be improper or unnecessarily delayed which may subject the person responsible to additional penalties under the state's authorities.

Purpose

It is the policy of the state of Texas to keep its natural resources held in trust as pristine as possible, taking into account the multiple uses by public and private interests and the protection of the environment. Spills, discharges, and releases of oil, hazardous substances, or other substances endanger the natural resources of the state.

Additionally, it is the policy of this state to prevent the spill, discharge, or release of oil, hazardous substances, or other substances into the waters in the state, to cause the removal of such spills, discharges, or releases without undue delay, and to protect the air quality of the state. The Texas Legislature intends to exercise the police power of the state to protect Texas' natural resources and environmental quality.

The State of Texas Oil and Hazardous Substances Spill Contingency Plan (State Spill Contingency Plan) establishes a means to allow state and federal agencies, industry, local governments, and other involved or affected parties to work together in spill response.

The State Spill Contingency Plan provides guidance for a coordinated response to spills of oil, hazardous substances, or other substances or a release or threatened release of any such substances and to outline notification procedures by which these incidents shall be reported to state and federal agencies.

The regulated public needs to know what to expect; state agencies need to commit to a unified plan that accommodates the varied roles and responsibilities of a multi-agency approach to spill response; and consultants, attorneys, and others need to know how to advise their clients.

While the State Spill Contingency Plan does not carry the force of law, it does reflect state procedure and guidance and identifies those policies and requirements set forth in statutes and rules. Those state agencies and other parties involved in spill response are expected to work to implement the plan. Section 3, "Definitions," must be carefully reviewed for a full understanding of the intent and application of the State Spill Contingency Plan.

The State Spill Contingency Plan is intended to cover spills of oil, hazardous substances, or other substances for the entire state of Texas, including all inland areas, waters, and coastal waters to the three-league state boundary. The plan will also serve as a guide for state response to spills in federal waters, other states, or other countries when state waters are threatened.

Nothing in this plan absolves or excuses the party responsible for any spill from complying with applicable local, state, or federal regulations concerning spills, discharges, or releases of oil, hazardous substances, or other substances. Neither is it intended that this plan will supersede any agency's rules.

Introduction

This plan provides the necessary framework to effectively organize and coordinate the overall state response to spill incidents by addressing the key policies, statutes, and the roles and responsibilities of industry and state agencies. A functional guideline to determining agency jurisdiction is followed by a discussion of each agency's jurisdiction, including definitions of key terms and notification requirements.

Public Policy and Legislative History

It is the policy of the state of Texas to take all appropriate action to protect the natural resources of the state from oil and hazardous substance spills or releases.

As a consequence of this policy, Texas state agencies, under both broad grants of power to prevent pollution and specific legislation to develop contingency plans, have come together to draft a state spill contingency plan to strengthen and improve state response to spills or releases of oil and hazardous substances.

The State of Texas Oil and Hazardous Substances Spill Contingency Plan is being published as several key regulatory changes are being implemented. These changes have been incorporated to the greatest extent possible in this plan; however, the reader is cautioned that new rules or regulations may have been implemented subsequent to the publication of this plan.

The State Spill Contingency Plan will be reviewed on a regular basis to incorporate needed changes and new information. Comments concerning the content of the plan may be directed to:

Stephen Thompson
Emergency Response Unit MC 176
TNRCC
PO Box 13087
Austin TX 78711

Agency Roles and Responsibilities

The state of Texas relies upon a network of state agencies for state response to spills or releases. At first glance, the multi-agency organizational structure can seem confusing to the regulated public.

The decision as to which agency might have jurisdiction over a particular incident is simplified if one recognizes that the roles and responsibilities of the agencies flow from the classification of the spill.

Spills can be classified by the type of substance (crude oil, refined petroleum product, or hazardous substance), the source of the spill (from oil and gas exploration or production facilities, an industrial facility, or a tanker), or by the geographic location of the spill (onto land and inland waters or into coastal waters).

In coastal waters or along coastal shorelines, the size of an oil spill may direct which agency has jurisdiction. Additionally, spills of a disastrous magnitude will require the assistance of the Division of Emergency Management to coordinate activities.

Spills of hazardous substances have historically been and continue to be under the jurisdiction of the Texas Natural Resource Conservation Commission, as have spills of refined petroleum products.

Because the Railroad Commission has authority over the exploration and production of oil, gas, and geothermal operations and pipelines that transport crude oil and natural gas, crude oil spills from exploration and production operations fall within its purview.

The General Land Office has long been entrusted with the management of state coastal submerged lands and has been charged with the responsibility of prevention of and response to coastal oil spills; therefore, a spill from an oil tanker or an offshore oil rig falls within its jurisdiction.

However, in the coastal area, the minor spills of crude oil (240 barrels or less) from oil and gas exploration or production facilities remain the responsibility of the Railroad Commission. Coastal spills of hazardous substances or other pollutants are under the jurisdiction of the Texas Natural Resource Conservation Commission.

The above is merely a rule-of-thumb sketch of the responsibilities of state agencies based on the classification of a spill, and—the reader must remember—there are always exceptions to the rule.

Other agencies also have a significant role to play in the protection of the state's natural resources. The Texas Parks and Wildlife Department is concerned with the restoration and preservation of natural resources damaged by any spill, whether coastal or inland. The Texas Department of Health is charged with the responsibility for threats to human health caused by contamination of water supplies, shellfish, and finfish resources.

The Texas Department of Public Safety provides communication support for spills of disastrous proportions. Following is an outline of each agency's legislative mandate concerning spills, releases, discharges, or threatened releases of oil, hazardous substances, or other pollutants.

Statutory Authorities and Jurisdictions

Texas Natural Resource Conservation Commission

Section 26.127 of the Texas Water Code establishes the Texas Natural Resource Conservation Commission (TNRCC) as the principal authority in the state on matters relating to the quality of water in the state.

In addition, the Hazardous Substances Spill Prevention and Control Act (Chapter 26, Subchapter G, §26.262, Texas Water Code) stipulates that it is the policy of this state to prevent the spill or discharge of hazardous substances into the waters in the state and to cause the removal of any spills and discharges without undue delay. This subchapter shall be construed to conform with Chapter 40 of the Natural Resources Code.

The TNRCC is the state's lead agency in spill response to certain inland oil spills, all hazardous substance spills, spills of other substances which may cause pollution, as well as any releases of substances which may adversely impact air quality. The TNRCC shall conduct spill response for the state, and shall otherwise administer the provisions of the Act.

The Act also authorizes the executive director of the TNRCC (hereinafter referred to as the executive director) to act independently if no federal on-scene coordinator is present or no action is being taken by an agency of the federal government in response to a spill or discharge of oil, hazardous substances, or other substances.

The executive director's response may include actions to abate and remove the spill.

Under the authority of certain provisions of Chapter 361 of the Texas Health and Safety Code, the TNRCC has additional removal authorities with respect to cleanup of a release or threatened release of hazardous substances.

The TNRCC has been designated by the governor of Texas, in accordance with the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), (42 U.S.C. §9601, et seq.); the Superfund Amendments and Reauthorization Act of 1986 (SARA), (Public Law 99-499); the Clean Water Act, as amended (33 U.S.C. §1251, et seq.); and the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), as the state's lead agency for "Superfund" activities and as one of the state's representatives to the federal Regional Response Team (RRT).

In accordance with 40 CFR Part 300.32(b), the RRT serves as the regional body for planning and preparedness before a response action is taken and for coordination and advice during such actions.

Further, the governor of Texas has designated the TNRCC as one of the three state trustees for damage assessment and restoration of the state's natural resources that may be affected by a spill, discharge, or release.

The TNRCC is the designated trustee for air, surface water including sediments, groundwater, and drinking water resources. The TNRCC as a natural resource trustee has the obligation to protect and preserve all trust resources of the state of Texas.

The state's municipal hazardous waste and industrial solid waste program is implemented by Title 30 Texas Administrative Code (30 TAC) Chapter 335, adopted under the authority of the State Solid Waste Disposal Act (Texas Health and Safety Code Ann., Chapter 361, Vernon Supp. 1990).

Chapter 335 includes the requirement that any person who conveys or transports hazardous waste by truck, ship, pipeline or other means, shall clean up any hazardous waste discharge or release or take such action as may be required or approved by the TNRCC so that the hazardous waste discharge or release no longer presents a hazard to human health or the environment (see 30 TAC §335.93).

These Rules also require that owners and operators of hazardous industrial solid waste storage, processing, or disposal facilities must maintain and operate such facilities so as to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or water which could threaten human health or the environment.

Additionally, each owner or operator of a hazardous industrial solid waste facility must have a contingency plan for the facility designed to minimize the above possibilities (see 30 TAC §335.152, incorporating by reference Title 40 Code of Federal Regulations Part 264).

The state's regulation of underground and aboveground storage tanks, as administered by the Petroleum Storage Tank Program, is authorized by 30 TAC Chapter 334, promulgated under the Texas Water Code §§26.341–26.363.

This program establishes minimum standards and procedures to protect and maintain the quality of the state's groundwater and surface water resources from environmental contamination that could result from any releases of harmful substances stored in such tanks.

Authority was granted to assess and collect fees for deposit into a fund which could then be used for remediation purposes. In addition to ongoing preventive and remedial actions, emergency orders may be issued to the owner and/or operator of an underground or aboveground storage tank if there is an actual or threatened release of a regulated substance (Texas Water Code §26.354).

Emergency orders may also be issued if it is determined that more expeditious corrective action than is otherwise provided for is necessary to protect the public health and safety or the environment from harm. Orders issued under this provision may prohibit a person from allowing or continuing the release (or threatened release) and require the person to take the actions necessary to eliminate it.

Additionally, the TNRCC is authorized to undertake corrective action measures under any circumstances in which the commission considers it necessary to protect the public health and safety or the environment (Texas Water Code §26.3511).

Under the authority of the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382, Vernon Supp. 1990), the TNRCC is charged with safeguarding the state's air resources from pollution by controlling or abating air pollution and emissions of air contaminants, consistent with the protection of public health, general welfare, and physical property, including the aesthetic enjoyment of air resources by the public and the maintenance of adequate visibility.

Under 30 TAC §101.6, the TNRCC also requires facilities to report to the regional office and all local air pollution control agencies all upsets that cause unauthorized air emissions that exceed a reportable quantity and make a record of all upsets that cause unauthorized air emissions.

Any spill or discharge required to be reported under the Spill Prevention and Control Rules (30 TAC §§327.1–327.5) is not required to be reported under §101.6—only the record is required.

General Land Office

The Texas General Land Office (GLO) is the state's lead agency for response to oil spills that enter or threaten to enter coastal waters. State discharge response and cleanup operations resulting from unauthorized discharges of oil that enter or threaten to enter coastal waters are administered and directed by the GLO pursuant to the Oil Spill Prevention and Response Act of 1991 (OSPRA), Texas Natural Resources Code §40.001 et seq.

OSPRA defines coastal waters as "the waters and bed of the Gulf of Mexico within the jurisdiction of the state of Texas, including the arms of the Gulf of Mexico subject to tidal influence, and any other waters contiguous thereto that are navigable by vessels with a capacity to carry 10,000 gallons or more of oil as fuel or cargo." Thus, the jurisdiction of the GLO extends beyond simply waters that are subject to tidal influence.

OSPRA defines unauthorized discharge of oil as "any discharge of oil, or any discharge of oil emanating from a vessel into waters adjoining and accessible from coastal waters, that is not authorized by a federal or state permit."

OSPRA defines discharge of oil as "an intentional or unintentional act or omission by which harmful quantities of oil are leaked, spilled, pumped, poured, emitted, or dumped into or on coastal waters or at a place adjacent to coastal waters where, unless controlled or removed, an imminent threat of pollution to coastal waters exists."

The GLO has been designated by the governor of Texas as a natural resource trustee under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. §§ 9601 et seq., and the Oil Pollution Act of 1990, 33 U.S.C.A. The natural resources for which the GLO is responsible are those related to state-owned lands.

The GLO, as a natural resource trustee, has the obligation to protect and preserve all trust resources of the state of Texas. Sections 51.121 and 51.291 of the Texas Natural Resources Code also give the GLO permitting authority over pipelines and platforms located on state lands, and antipollution requirements are built into GLO contracts and rules.

Railroad Commission of Texas

The Railroad Commission of Texas (RRC) has spill response authority for spills or discharges from all activities associated with the exploration, development, or production, including storage or transportation, of oil, gas, and geothermal resources (Texas Natural Resources Code §§85.042, 91.101, and 91.601).

Spills or discharges from brine mining or surface mining are also under the jurisdiction of the RRC (Texas Revised Civil Statutes Ann. Art. 5920-11 (Vernon) and Chapter 131 of the Texas Natural Resources Code). Any spill or discharge, whether hazardous or nonhazardous, that emanates from an oil, gas, or geothermal resource exploration or production facility or brine mine or surface mine is under the jurisdiction of the RRC.

Activities associated with the exploration, development, and production of oil or gas do not include refining or manufacturing processes; however, the processing of natural gas or natural gas liquids at gasoline plants or at natural gas or natural gas liquids processing plants is subject to the jurisdiction of the RRC with one narrow exception concerning waste from gas processing activities.

Until the RRC receives delegation of RCRA authority, waste from gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and that is a hazardous waste under RCRA is under the authority of the Texas Natural Resource Conservation Commission.

If the waste from these gas processing plants is not hazardous under RCRA, then the waste is under the jurisdiction of the RRC (Texas Natural Resources Code §91.101).

Prevention of pollution from spills or discharges of hazardous or nonhazardous materials from crude oil and natural gas pipelines is under the jurisdiction of the RRC. The RRC does not have pollution prevention authority over pipelines carrying refined petroleum products such as gasoline, diesel, and other fuel oil.

A spill of crude oil into coastal waters may involve both the RRC and the GLO. Although the GLO is the lead agency for spills of oil, including crude oil, into coastal waters or that pose an imminent threat to coastal waters if not abated, the RRC is on-scene coordinator for coastal spills of 240 barrels or less (Texas Natural Resources Code §40.008).

The RRC also has pipeline safety jurisdiction over pipelines carrying carbon dioxide, natural gas, and hazardous liquids. The Pipeline Safety Division of the RRC is charged with ensuring the safe operation of such pipelines (Texas Revised Civil Statutes, Article 6053-1 Texas Natural Resources Code, Chapter 117).

Therefore, personnel from the RRC's Pipeline Safety Division may be present at the scene of a spill to investigate concerns related to the safe operation of the pipeline and to determine a probable cause of the spill.

Texas Parks and Wildlife Department

The Texas Parks and Wildlife Department (TPWD) is the state agency with the primary responsibility for protecting the state's fish and wildlife resources (Chapter 12, Texas Parks and Wildlife Code).

In addition to TPWD authority granted under Chapter 26 of the Texas Water Code, §12.0011 of the Texas Parks and Wildlife Code states that TPWD's resource protection activities include investigating fish kills and any type of pollution that may cause loss of fish and wildlife resources, taking necessary action to identify the cause and party responsible for the fish kill or pollution, estimating the monetary value of lost resources, and seeking restoration through presentation of evidence to the agency responsible for permitting or through county or district court.

By designation of the Governor of Texas, the TPWD is also a state natural resource trustee. The natural resources for which the TPWD is responsible are the biota, i.e., aquatic life, wildlife, birds, vegetation, etc. The TPWD, as a natural resource trustee, has the obligation to protect and preserve all trust resources of the state of Texas.

Section 11.071 of the Texas Parks and Wildlife Code gives the TPWD the authority to regulate the use of Department lands for oil, gas, and other mineral recovery and associated activities as the TPWD considers reasonable and necessary to protect the surface estate of Department lands or to protect human health or property. Department lands include state parks, wildlife management areas, and natural areas.

Chapter 86 of the Texas Parks and Wildlife Code authorizes the TPWD to regulate, control, and protect marl and sand of commercial value and all gravel, sand, and mudshell located within the tidewater limits of the state and on islands within those limits, and within the freshwater areas of the state not embraced by a survey of private land and on islands within those areas.

Texas Department of Public Safety

The Texas Department of Public Safety (DPS) has adopted rules relating to the reporting of all transportation incidents involving releases of reportable quantities of hazardous materials and on-site coordination of transportation emergencies on public roads and railroads (Texas Government Code Ann., §411.018, Vernon Supp. 1990).

These rules specify the DPS's role in on-site coordination and outline a written report requirement for carriers involved in hazardous materials transportation incidents (see 37 TAC §§3.101 and 3.102).

During transportation incidents involving hazardous materials, the DPS official, as on-site coordinator, is responsible for on-site coordination of transportation emergencies for all unincorporated areas and may assume the on-site coordination role within cities when requested to do so by local government (37 TAC §3.101(a)).

The DPS law enforcement officer who is the first responder on-site is responsible for the on-site coordination (37 TAC §3.101(b)). The DPS on-site coordinator is authorized to make emergency rules when normal operating procedures prove inadequate (37 TAC §3.101(d)). DPS coordination responsibilities will be performed until relieved by appropriate DPS authority or until the incident is concluded.

Texas Department of Transportation

The Texas Department of Transportation (TxDOT) and the Texas Natural Resource Conservation Commission, as provided in §26.264(f) of the Texas Water Code, have developed a contractual agreement whereby TxDOT personnel, equipment, and materials may be used in state-funded cleanup actions. All expenses and costs resulting from cleanup activities are subject to reimbursement from the Texas Spill Response Fund.

The Governor of Texas and the Governor's Division of Emergency Management

If a spill presents or threatens to become a disaster, the Governor of Texas may utilize the authority granted under the Texas Disaster Act of 1975 (Texas Government Code Ann., Chapter 418, Vernon Supp. 1990) to make available and bring to bear all resources of the state to prevent or lessen the impact of such a disaster.

As defined in the Texas Disaster Act of 1975, disaster means the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from any natural or man-made cause or other public calamity requiring emergency action. A disaster is declared by executive order or proclamation if the governor finds that a disaster has occurred or that the occurrence or the threat of a disaster is imminent.

Such an executive order activates the recovery and rehabilitation phase of the State of Texas Emergency Management Plan. The Texas Disaster Act of 1975 authorizes the governor to establish an Emergency Management Council to advise and assist the governor in all matters relating to disaster preparedness, emergency services, energy emergencies, and disaster recovery.

The Emergency Management Council is composed of the heads of all the state's agencies, boards, and commissions and representatives of organized volunteer groups whose legal functions relate to important phases of emergency management (Texas Government Code Ann., §418.013, Vernon Supp. 1990).

The director of the DPS also serves as the director of the Governor's Division of Emergency Management (DEM) and chairs the Emergency Management Council. Under the State of Texas Emergency Management Plan, the Emergency Management Council is responsible for the coordination and utilization of all state resources during a disaster.

Operations of the Council are coordinated by the Governor's Division of Emergency Management (DEM). Under the State of Texas Emergency Management Plan, emergencies concerning spills or discharges of hazardous substances, or the release or threatened release of hazardous substances, radiological emergencies, and release which may adversely impact the state's air quality, are addressed under "Oil and Hazardous Materials Support Function."

The Texas Natural Resource Conservation Commission serves as the lead agency for the oil and hazardous materials support function with support being provided by the General Land Office and the Railroad Commission of Texas.

Definitions

The environmental regulatory authorities of the various state agencies are based on an equally diverse body of legislation. The following definitions are compiled from several state statutes, rules, and also summarize practical operational concepts.

Each definition is followed by the abbreviation of the regulatory agency that adheres to that particular definition. ALL indicates the general acceptance of that definition by all agencies.

Acceptance—As used in the context of accepting analytical results from foreign laboratories, acceptance means that the data generated by foreign laboratories are potentially useful in the decisionmaking process; however, it does not constitute "validation" of the data or "accreditation" of the laboratory. (TNRCC)

Activity or facility—Includes any and all means of transport whether by pipeline, barge, ship or vessel, truck, or other vehicle, as well as any stationary facility including, but not limited to, waste treatment facilities, tank farms, storage areas, sludge pits, and/or industrial solid waste sites. (TNRCC)

Barrel—42 United States gallons of oil at a temperature of 60 degrees Fahrenheit. May be used to refer to various chemicals in 55-gallon barrels or drums. When used to refer to beer, a barrel is 31 gallons. (ALL)

Coastal waters—All tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico seaward to the three–marine league limit of Texas' jurisdiction; and non-tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico inland to the point at which navigation by regulated vessels is naturally or artificially obstructed.

The term includes the entirety of the Gulf Intracoastal Waterway (GIWW) within Texas, and the following waters: Starting from Echo, Texas, 30E09'10"N 93E42'25"W (Orange County) and proceeding south on the Sabine River to the intersection with the GIWW, thence westerly along the GIWW, including Adams and Cow Bayous to the Highway 87 bridges, to Port Arthur.

This includes the Neches River to a point 22 miles north, 30E07' 48"N 94E05'00"W. Then along the GIWW towards Port Arthur, including Taylors Bayou south of Highway 73.

From Port Arthur along the GIWW to, and including, East Bay, Trinity Bay, Cedar Bayou to 29E44'55"N 94E55' 47"W, Lynchburg Canal to 29E41'00"N 94E59'00"W, to the San Jacinto River 2.5 miles NW of the I-10 bridge, Houston Ship Channel to the turning basin, thence 6.5 miles west on Buffalo Bayou at 29E46'00"N 94 20'46"W.

The Houston Ship Channel includes: Buffalo Bayou to Highway 59, Brays Bayou to the Broadway Street Bridge, Sims Bayou to Highway 225, Vince Bayou to North Ritchie Street, Hunting Bayou to I-10, Greens Bayou to I-10, Boggy Bayou to Highway 225, Tucker Bayou to Old Battleground Road, Carpenter's Bayou to Sheldon Road, and Goose Creek to Highway 146.

Proceed south and include Barber Cut, Bayport Channel, Clear Lake, Dickinson Bay, Moses Lake, Dollar Bay, Texas City Channel (including turning basin), Swan Lake, Jones Bay, and continuing at the junction of West Bay and the GIWW in Galveston.

Continue westerly along the GIWW to the Port of Freeport, including Greens Lake, Chocolate Bay/Bayou to nine miles NW of the GIWW 29E14'42"N 95E13'30"W, the Old Brazos River and the New Brazos River up to the Missouri-Pacific Railroad bridge in Brazoria, and the Dow Barge Canal.

Then southerly along the GIWW through and including, Jones Lake and Creek, the San Bernard River to Sweeney Texas 29E03'55"N 95E40'15"W, Cowtrap Lake, Matagorda Bay, the Colorado River to the Port of Bay City 28E51'45"N 96E01'45"W, Culver Cut (West Branch Colorado River to 28E42'N and the entire middle branch), Crab Lake, Oyster Lake, Tres Palacios Bay to 28E47'N, Turtle Bay, Carancahua Bay, Keller Bay, Cox Bay, Lavaca Bay, Lavaca River to 28E50'N, Chocolate Bay/Bayou to 96E40'W, Powderhorn Lake, Robinsons Lake, Blind Bayou, La Salle Bayou, Broad Bayou, and Boggy Bayou.

Continuing southerly on GIWW from Port O'Connor through San Antonio Bay, including, Guadalupe Bay, Mission Lake, Green Lake, Victoria Barge Canal, Guadalupe River to 28E30'N, Goff Bayou, Hog Bayou, Corey Bay, Buffalo Lake, Alligator Slide Lake, Twin Lake, Mustang Lake, and Jones Lake.

Then continuing through Mesquite Bay including: Dunham Bay, Long Lake, Sundown Bay and the Aransas Wildlife Refuge. Continuing southerly through Saint Charles Bay including: Burgentine Bay/Burgentine Creek to 28E17'N, Salt Creek to 28E16'N, and Cavaso Creek to 97E01'W. Thence through Copano Bay including, Copano Creek, Mission Bay/River, Chiltipin Creek to 97E18'W, Aransas River to 97E18'W, Swan Lake, Port Bay, and Salt Lake.

Then southerly including: Little Bay, Aransas Bay, Conn Brown Harbor, Redfish Cove, Redfish Bay, La Quinta Channel, Corpus Christi Bay, Nueces Bay, Nueces River to U.S. 77, Rincon Industrial Channel, Rincon Bayou, Tule Lake, Corpus Christi Inner Harbor, Oso Creek, Oso Bay, and Cayo Del Oso.

Continuing south, through and including, Packery Channel, Laguna Madre, Baffin Bay, Alazan Bay, Cayo del Hinoso, Petrolino [sic; Petronila] Creek, Cayo del Infiernillo, Cayo del Grullo, Laguna Salada, Laguna de los Olmos, and Comitas Lake.

Continuing through the Laguna Madre to Redfish Bay, Port Mansfield Harbor, Four Mile Slough, Arroyo Colorado River to Harlingen 26E11'53"N 97 35'57"W, Laguna Atascosa, Arroyo Colorado Cutoff, El Realito Bay, Laguna Vista Cove, Port Isabel Harbor, Brownsville Ship Channel, Bahia Grande, Vadia Ancha, San Martin Lake, and South Bay.

Where the coastal area is defined by a body of water such as a bay or lake, it includes any small bays or lakes encompassed therein. (TNRCC and GLO)

Commissioner—Statutorily defined (in OSPRA) as the commissioner of the General Land Office. May also be used to refer to the appointed members comprising the Texas Natural Resource Conservation Commission and/or the elected members of the Railroad Commission of Texas. (ALL)

Comptroller—The Comptroller of Public Accounts. (ALL)

Crude oil—Any naturally occurring liquid hydrocarbon at atmospheric temperature and pressure coming from the earth, including condensate. (ALL)

Damages—Compensation to:

(a) an owner, lessee, or trustee for any direct, documented loss of, injury to, or loss of use of any real or personal property or natural resources damaged by an unauthorized discharge of oil;
(b) a state or local government for any direct, documented net loss of taxes or net costs or increased entitlements or public services; or,
(c) persons, including but not limited to holders of an oyster lease or permit; persons owning, operating, or employed on commercial fishing, oystering, crabbing, or shrimping vessels; persons owning, operating, or employed by seafood processing concerns; and others similarly economically reliant on the use or acquisition of natural resources for any direct, documented loss of income, profits, or earning capacity from the inability of the claimant to use or acquire natural resources arising solely from damage to the natural resources from an unauthorized discharge or oil. (GLO)

Damages with respect to natural resources—The cost to assess, restore, rehabilitate, or replace damaged natural resources, or to mitigate further damage, and their diminution in value after such restoration, rehabilitation, replacement, or mitigation. (TNRCC, GLO, and TPWD)

Disaster—The occurrence or imminent threat of widespread or severe damage, injury or loss of life or property resulting from any natural or man-made cause, including fire, flood, earthquake, wind, storm, wave action, oil spill or other water contamination, volcanic activity, epidemic, air contamination, blight, drought, infestation, explosion, riot, hostile military or paramilitary action, or other public calamity requiring emergency action or an energy emergency as declared by the Governor of Texas. (ALL)

Discharge of oil—An intentional or unintentional act or omission by which harmful quantities of oil are spilled, leaked, pumped, poured, emitted, or dumped into or on coastal waters or at a place adjacent to coastal waters where, unless controlled or removed, an imminent threat of pollution to coastal waters exists. (GLO)

Discharge or spill—An act or omission by which oil, hazardous substances or other substances in harmful quantities (see definition) are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in this state or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run, or otherwise enter water in this state.

The term discharge or spill shall not include any discharge that is authorized by a permit issued pursuant to federal law or any law of this state or that is regulated, with the exception of transportation spills of hazardous substances and spills of hazardous substances in coastal waters, by the RRC. (TNRCC)

Discharge cleanup organization—Any group or cooperative, incorporated or unincorporated, of owners or operators of vessels or terminal facilities and any other person who may elect to join, organized for the purpose of abating, containing removing, or cleaning up pollution from discharges of oil or rescuing and rehabilitating wildlife or other natural resources through cooperative efforts and shared equipment, personnel, or facilities.

Any third-party cleanup contractor, industry cooperative, volunteer organization, or local government shall be recognized as a discharge cleanup organization, provided the commissioner [of the GLO] properly certifies the organization. (GLO)

Emergency Response Unit—A unit of the Emergency Response and Assessment Section of the Pollution Cleanup Division in the Office of Waste Management and Pollution Cleanup of the TNRCC that is responsible for the coordination of response to spills and discharges under TNRCC jurisdiction.

The Emergency Response Unit represents the TNRCC on the State Emergency Management Council and facilitates TNRCC's role as the lead agency for the oil and hazardous materials support function during disaster response situations. (ALL)

Executive director—The executive director of the Texas Natural Resource Conservation Commission. (ALL)

Facility—Any structure or building, including contiguous land, or equipment, pipe or pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, aircraft, or any site or area where a discharge or spill has occurred or may occur. (TNRCC)

Federal fund—The federal Oil Spill Liability Trust Fund. (ALL)

Fund—The Coastal Protection Fund. (GLO)

Fund or Fee Fund—The Hazardous and Solid Waste Remediation Fee Fund. (TNRCC)

Fund or Spill Fund—The Texas Spill Response Fund. (TNRCC)

Harmful quantity—Any quantity of a hazardous substance, or other substance, discharge or spill which is determined to be harmful to the environment, or public health or welfare or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare by the administrator of the EPA pursuant to federal law; and that quantity or concentration of a hazardous substance or other substance that is toxic, corrosive, ignitable, reactive, or oxygen demanding (biological or chemical) or that exhibits another factor or factors which the executive director of the TNRCC or his designee determines is causing or may cause pollution or harm to the environment, or the public health or welfare. (TNRCC)

Harmful quantity—That quantity of oil the discharge of which is determined by the commissioner [of the GLO] to be harmful to the environment or the public health or welfare or may reasonably be anticipated to present an imminent or substantial danger to the public health or welfare. (GLO)

Hazardous substance—Any substance designated as such by the administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §9601 et seq.); regulated pursuant to Section 311 of the federal Clean Water Act (33 U.S.C. §1321 et seq.), or designated by the commission. (TNRCC)

Hazardous substance—Any substance, except oil, designated as hazardous by the Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §9601 et seq.) and designated by the executive director of the TNRCC. (GLO)

Hazardous waste—Any solid waste identified or listed as a hazardous waste by the administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., §6901, et seq., as amended or as defined in the Texas Health and Safety Code, Chapter 361.

The EPA administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 Code of Federal Regulations Part 261 Subparts C and D, respectively. (TNRCC)

Industrial solid waste—Solid waste, as defined in 30 TAC §335.1 resulting from or incidental to any process of industry or manufacturing, or mining, or agricultural operations, which may include hazardous waste as defined in 30 TAC §335.1.

LEPC—Local emergency planning committee. (ALL)

Marine terminal—Any terminal facility used for transferring crude oil to or from vessels. (GLO)

National Contingency Plan—The plan prepared and published, as revised from time to time, under the federal Water Pollution Control Act (33 U.S.C. §1321 et seq.) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §9601 et seq.). This plan is also referred to as the NCP. (ALL)

Natural resources—All land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state. (TNRCC/GLO)

Natural resources—All land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state including the state's mineral resources such as oil and natural gas reserves. (RRC)

Oil—Oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil (see Clean Water Act, 33 U.S.C. §1321(a)). Oil does not include used oil, petroleum product or oil designated as a hazardous substance in 40 CFR 302.4. (TNRCC)

Oil—Oil of any kind or in any form, including but not limited to crude oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §9601 et seq.) and which is subject to the provisions of that Act, and which is so designated by the Texas Natural Resource Conservation Commission. (GLO)

On-scene coordinator (OSC)—The official designated by and representing the state or federal agency of appropriate jurisdiction (i.e, the lead agency) to coordinate and direct state- or federally funded responses, or to oversee private responses, to discharges or spills. May also be used interchangeably with SOSC, FOSC, or agency on-scene coordinator. (ALL)

Other substance—Any substance, which may be useful or valuable and therefore not ordinarily considered to be a waste, but that will cause pollution if discharged into water in the state (see Texas Water Code, §26.039(a)(3)). (TNRCC)

Owner or operator—Any person: (a) owning, operating, or chartering by demise a vessel; or (b) owning a terminal facility or a person operating a terminal facility by lease, contract, or other form of agreement. (GLO)

Person—Includes an individual, firm, corporation, association, and partnership. (TNRCC)

Person responsible or responsible person—The owner, operator, or demise charterer of a vessel from which a spill emanates; the owner or operator of a facility from which a spill emanates; or any other person who causes, suffers, allows or permits a spill or discharge. (TNRCC)

Person responsible or responsible person—The owner, operator, or demise charterer of a vessel or terminal facility from which an unauthorized discharge of oil emanates or threatens to emanate; in the case of an abandoned vessel or terminal facility, the person who would have been the responsible person immediately prior to the abandonment; and, any other person who causes, suffers, allows or permits an unauthorized discharge of oil or threatened unauthorized discharge of oil. (GLO)

Petroleum product—A petroleum substance obtained from distilling and processing crude oil that is liquid at standard conditions of temperature and pressure, and that is capable of being used as a fuel for the propulsion of a motor vehicle or aircraft, including but not necessarily limited to motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel.

The term does not include naphtha-type jet fuel, kerosene-type jet fuel, or a petroleum product destined for use in chemical manufacturing or feedstock of that manufacturing. (TNRCC)

Petroleum storage tank (PST) exempted facilities—Petrochemical plants, petroleum refineries, electric generating facilities, transformers and other electrical equipment used during the transmission of electricity, bulk loading facilities, and pipelines that are exempted from the Aboveground Storage Tank (AST) program under 30 TAC §334.123(a)(9) and 30 TAC §334.123(b) relating to Statutory Exemptions for ASTs, and 30 TAC §334.124(a)(4) relating to Commission Exclusions for ASTs. (TNRCC)

Pipeline—A pipeline is:

(1) an interstate pipeline facility, including gathering lines and any aboveground storage tank connected to such facility, if the pipeline facility is regulated under the Natural Gas Pipeline Safety Act of 1968 (49 United States Code §1671, et seq.) or the Hazardous Liquid Pipeline Safety Act of 1979 (49 United States Code §2001, et seq.); or
(2) an intrastate pipeline facility or any aboveground storage tank connected to such a facility, if the pipeline facility is regulated under the Natural Resources Code Chapters 111 or 117, or, Texas Civil Statutes, Article 6053-1 and 6053-2. (TNRCC)

Pollution—The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders such water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose (Texas Water Code §26.001). (TNRCC)

Pollution—The presence of harmful quantities of oil from an unauthorized discharge in coastal waters or in or on adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes. (GLO)

Quality assurance—Refers to identification, precision, accuracy, and error determination of laboratory analytical methods. (TNRCC)

Quality control—When used in the context of sample analyses, quality control refers to holding times, blank contamination, spike recovery, and detection capabilities. (TNRCC)

Regional manager—The manager of a TNRCC field office. (TNRCC)

Regional office—A TNRCC field office. (TNRCC)

Regional Response Team—A team consisting of designated representatives from participating federal, state, and local agencies or authorities pursuant to Title 40 Code of Federal Regulations (CFR) § 300 et seq. (ALL)

Registered facility—Any facility that is registered with or permitted by the commission. (TNRCC)

Release—Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, escaping, leaching, dumping, injection, or disposing into the environment, but excludes:

(1) any release which results in exposure to persons solely within the workplace, with respect to a claim which those persons may assert against the employer of those persons;
(2) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;
(3) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.) if the release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under Section 170 of such Act, or, for the purposes of Section 104 of CERCLA or any other response action, any release of source, by-product, or special nuclear material from any processing site designated under §122(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. 7912 and 7942); and, (4) the normal application of fertilizer. (TNRCC)

Remedial action—Those actions consistent with a permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous waste into the environment to prevent or minimize the release of hazardous wastes so that they do not migrate to cause an imminent and substantial danger to present or future public health and safety or the environment.

The term includes such remedial actions as authorized under the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510) or the Solid Waste Disposal Act (Texas Health and Safety Code, Chapter 361, Vernon Supp. 1990). (TNRCC)

Removal of hazardous waste—The cleanup or removal of released hazardous wastes from the environment; the actions necessary to be taken in the event of the threat of release of hazardous wastes into the environment; the actions necessary to monitor, assess, and evaluate the release or threat of release of hazardous wastes; the disposal of removed material; or the taking of other actions as may be necessary to prevent, minimize, or mitigate damage to the public health and welfare or the environment that may otherwise result from a release or threat of release as authorized in the Solid Waste Disposal Act.

The term also includes security fencing or other measures to limit access, provision of alternate water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under Section 104(b) of the environmental response law, and any emergency assistance that may be provided under the Disaster Relief Act of 1974 as amended, 42 U.S.C. 5121-5202. (TNRCC)

Removal of oil or hazardous substances—The cleanup or removal of a discharge or spill as authorized by Chapter 26, Subchapter G, of the Texas Water Code, as amended.

The term applies to the executive director's expenditure of money from the Texas Spill Response Fund to obtain personnel, equipment, and supplies required in the cleanup of discharges and spills, including restoration of land and aquatic resources held in trust or owned by the state. (TNRCC)

Reportable upset—An upset that, in any 24-hour period, results in an unauthorized emission of air contaminants equal to or in excess of the reportable quantity as defined in 30 TAC Section 101.1. (TNRCC)

Response costs—With respect to an actual or threatened discharge:

(a) of oil, all costs incurred in an attempt to prevent, abate, contain, and remove pollution from the discharge, including costs of removing vessels or structures, and costs of any reasonable measures to prevent or limit damage to the public health, safety, or welfare, public or private property, or natural resources; or,
(b) of a hazardous substance, only costs incurred to supplement the response of the Texas Natural Resource Conservation Commission. (GLO)

Solid waste—Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations, and from community and institutional activities, but does not include:

(1) solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges subject to regulation by permit issued pursuant to Chapter 26, Texas Water Code (an exclusion applicable only to the point source discharge that does not exclude industrial wastewaters while they are being collected, stored, or processed before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment);
(2) uncontaminated soil, dirt, rock, sand, and other natural or man-made inert solid materials used to fill land if the object of the fill is to make the land suitable for the construction of surface improvements;
(3) waste materials which result from activities associated with the exploration, development, or production of oil or gas or geothermal resources (as those activities are defined in 30 TAC §335.1), and any other substance or material regulated by the Railroad Commission of Texas pursuant to §91.101, Natural Resources Code, unless such waste, substance, or material results from activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and is a hazardous waste as defined by the administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., as amended; or,
(4) a discarded material excluded by 40 CFR §261.4(a) or by variances granted under 30 TAC §335.18. (ALL)

Solid waste facility—All contiguous land, and structures, other appurtenances, and improvements on the land, used for processing, storing, or disposing of solid waste. A facility may be publicly or privately owned and consist of several processing, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations thereof). (ALL)

Terminal facility or facility—Any waterfront or offshore pipeline, structure, equipment, or device used for the purposes of drilling for, pumping, storing, handling, or transferring oil and operating where a discharge of oil from the facility could threaten coastal waters, including but not limited to any such facility owned or operated by a public utility or a governmental or quasi-governmental body. (GLO)

Trained personnel—One or more persons who have satisfactorily completed an appropriate course of instruction developed under §40.302 of the Texas Natural Resources Code and all other training requirements as determined by the commissioner. (GLO)

Transportation—The act of conveyance or movement of materials from one place to another by truck, ship, pipeline, or other means. (ALL)

Unauthorized discharge of oil—Any discharge of oil, or any discharge of oil emanating from a vessel into waters adjoining and accessible from coastal waters, that is not authorized by a federal or state permit. See also "unauthorized discharge" as defined in 31 TAC 19.2(a)(15). (GLO)

Unauthorized discharge of hazardous substances—A spill or discharge subject to Subchapter G, Chapter 26 of the Texas Water Code. (GLO)

Unauthorized emission—An emission of any air contaminant except carbon dioxide, water, nitrogen, methane, ethane, noble gases, hydrogen, and oxygen which exceeds any air emission limitation in a permit, rule, or order of the commission or as authorized by Texas Clean Air Act, §382.0518(g). (TNRCC)

Upset—An unscheduled occurrence or excursion of a process or operation that results in an unauthorized emission of air contaminants. (TNRCC)

Used oil—Oil that has been refined from crude oil, or synthetic oil, that as a result of use has been contaminated by physical or chemical impurities.

Vessel—Includes every description of watercraft or other contrivance used or capable of being used as a means of transportation on water, whether self-propelled or otherwise, including barges. (GLO)

Vessel—Every description of watercraft, used or capable of being used as a means of transportation on the water. (TNRCC)

Water or water in the state—Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface waters, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state. (TNRCC)

Notification Requirements

Federal

Reportable spills, as defined by federal regulations, shall be reported by the responsible person immediately to the National Response Center (NRC) duty officer in Washington, D.C. The toll-free number for the NRC is 800/424-8802.

All notices of spills received at the NRC are relayed immediately by telephone to the predesignated federal on-scene coordinator (OSC) for the affected area. If it is not possible to immediately report to the NRC, the report may be given to the office of the appropriate federal OSC (Coast Guard or EPA).

However, the responsible person is still required to notify the NRC as soon as possible. Notification of the NRC does not constitute notice to the state.

State of Texas

The state of Texas has established a toll-free Environmental Emergency Hot Line at 1-800-832-8224 to provide the regulated community with a notification system designed to satisfy their state reporting requirements with a single phone call. Callers dialing the hot line will be connected to the Texas Department of Public Safety Communications Center where DPS dispatchers will record the incoming call, determine which state agency has jurisdiction, and relay the report to the agency with jurisdiction both verbally and by telefax.

Agencies included in the system are the TNRCC, GLO, and RRC. This system generates an incident report and establishes a common incident numbering system.

Texas Natural Resource Conservation Commission

The Texas Water Code Section 26.039 and Subchapter G, as well as Title 30 Texas Administrative Code Chapter 327, requires reporting to the TNRCC of discharges, spills and releases, "which cause or may cause pollution of water in the state."

A telephone report is required by the person responsible, "as soon as possible and not later than 24 hours after the occurrence." The toll-free number 1-800-832-8224 may be called by the regulated community to report discharges, spills, and releases to the TNRCC.

Although TNRCC anticipates that the Environmental Emergency Hot Line will accept any call that they receive, the number has been established primarily for the regulated community. Additionally, there are other state and federal requirements for release reporting that may be satisfied by calling the TNRCC at 1-800-832-8224.

Callers may also satisfy reporting requirements by contacting their TNRCC regional office during regular business hours (8:00 am to 5:00 pm) or by calling the agency's 24-hour location at 512-463-7727 or 512-239-2507.

The TNRCC may also be called directly by persons other than the person responsible for a discharge, spill, or release when the caller wants to provide or obtain information regarding an environmental emergency.

For the purposes of this plan, a reportable discharge or spill is a discharge or spill of oil, hazardous substances, industrial solid waste, or other substances into the environment in a quantity equal to or greater than the reportable quantity (RQ) in any 24-hour period. The reportable quantities are listed as follows:

Oil, petroleum product, and used oil

The RQs for crude oil and oil other than that defined as petroleum product or used oil are:

- for spills or discharges onto land—210 gallons (5 barrels); or
- for spills or discharges directly into water in the state—quantity sufficient to create a sheen.

The RQs for petroleum product and used oil are:

- for spills or discharges to land from PST exempted facilities—210 gallons (5 barrels); or
- for spills or discharges onto land from non-PST exempt facilities—25 gallons;
- for spills or discharges directly into water in the state—quantity sufficient to create a sheen.

Hazardous substances

The reportable quantities for hazardous substances are:

- for spills or discharges onto land—the quantity designated as the final reportable quantity (RQ) in Table 302.4 in 40 CFR) §302.4; or
- for spills or discharges into waters in the state—the quantity designated as the final RQ in Table 302.4 in 40 CFR §302.4, except where the final RQ is greater than 100 pounds, in which case the RQ shall be 100 pounds.

Industrial solid waste or other substances

The RQ for spills or discharges into water in the state shall be 100 pounds.

Spills from certain underground and aboveground storage tanks

Regulations for spills from certain underground storage tanks (UST) and aboveground storage tanks (AST) are outlined in Title 30 Texas Administrative Code §334.75 entitled "Reporting and Cleanup of Surface Spills and Overfills."

Owners and operators of UST systems must contain and immediately clean up a spill or overfill, report to the TNRCC within 24 hours, and begin corrective action in accordance with 30 TAC §§334.76–334.81 (relating to Initial Response to Releases; Initial Abatement Measures and Site Check; Initial Site Characterization; Free Product Removal; Investigation for Soil and Groundwater Cleanup; and Corrective Action Plan) in the following cases:

- a spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons, or that causes a sheen on nearby surface water; and
- a spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (Title 40 Code of Federal Regulations Part 302).

Owners and operators of UST systems must contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons, and a spill or overfill of a hazardous substance that is less than the reportable quantity under CERCLA (40 CFR Part 302). If cleanup cannot be accomplished within 24 hours, owners and operators must immediately notify the executive director.

Spills by used oil handlers and recyclers

Spills at facilities that handle used oil are regulated pursuant to 30 TAC §324.15. Whenever there is a catastrophic release or discharge of used oil and used oil reaches the environment, corrective measures must be immediately taken by the responsible person to adequately protect human health and the environment from potential damages.

A spill of used oil in an amount sufficient to cause a sheen on water or a spill of automotive engine used oil or a mixture of automotive used oil and other used oil of 25 gallons or more that goes into the environment at a do-it-yourselfer used oil collection center should be reported to the TNRCC as soon as possible and not later than 24 hours after discovery (see 40 CFR §279.43(c) for discharges during transport.)

A spill or overfill of used oil at an underground storage tank that results in a release to the environment that exceeds 25 gallons or that causes a sheen on nearby surface water shall be reported and handled as in 30 TAC §334.75 (relating to reporting and cleanup of surface spills and overfills). All other used oil spills must be reported in accordance with other applicable commission requirements and agreements.

The responsible person may notify the TNRCC in any reasonable manner including by telephone, in person, or by any other method approved by the TNRCC.

Transportation Spills of Crude Oil, Natural Gas, and Natural Gas Liquids

The TNRCC also has jurisdiction over wastes associated with the transportation of crude oil and natural gas, including natural gas liquids, by railcar, tank truck, barge, or tanker.

The primary purpose for requiring notification as soon as possible is to provide the state an opportunity to assist the responsible person in the prevention of further pollution as well as to minimize impact to public health or the environment.

Pollution that could have been minimized or prevented by a more immediate notification and response may be treated as a separate violation. Additionally, the responsible person and others should recognize the need for, or appropriateness of, the immediate notification of local first responders and other authorities.

Once the TNRCC regional office or TNRCC ERT has been contacted, the TNRCC will act as lead agency and on-cene coordinator for those incidents subject to TNRCC jurisdiction. The TNRCC will initiate coordination with the appropriate state and federal agencies, depending upon the location and nature of the incident.

Involved state agencies may include the General Land Office (GLO); Texas Department of Public Safety (DPS); Governor's Division of Emergency Management (DEM); Railroad Commission of Texas (RRC); Texas Parks and Wildlife Department (TPWD); Texas Department of Transportation (TxDOT); and Texas Department of Health (TDH).

All state agencies and/or their field offices receiving notification of discharges or spills covered by this plan and under TNRCC jurisdiction will be responsible for immediately contacting the appropriate TNRCC office or the TNRCC ERT by telephone.

Railroad Commission of Texas

The responsible party must immediately notify the Railroad Commission of any fire, leak spill, or break from activities associated with the exploration, development, and production of oil, gas, or geothermal resources. These include:

- All spills of crude oil greater than five (5) barrels;
- All spills of any quantity of crude oil that enters water;
- All blowouts and/or fires associated with oil, gas, and geothermal activities;
- Any accidental release of hydrogen sulfide gas of sufficient volume to present a hazard and of any hydrogen sulfide–related accident; or
- Any injury, death, property damage from gas pipelines ($5,000) or hazardous liquid pipelines ($50,000) or other significant incident.

Spills should immediately be reported to the appropriate Railroad Commission division through the appropriate district office, or if necessary to the RRC 24-hour statewide emergency number, 512/463-6788. Examples of some spills requiring notification are spills from leases, crude oil or natural gas pipelines, rigs or platforms operating in coastal waters, or trucks on an oil or gas lease. Upon notification, the RRC will:

- Act as lead agency and state on-scene coordinator (OSC) for spills from facilities associated with the exploration, development, and production, including pipeline transportation or storage, of oil, gas, or geothermal resources, along with brine and other surface mining activities.
- Act as OSC for a crude oil spill of less than 240 barrels from an exploration, development, or production facility that enters coastal waters or poses an imminent threat of entering coastal waters.

- Provide technical expertise to the SOSC regarding releases of hydrogen sulfide gas.

- Provide communications gear, H2S-monitoring equipment, and boats if requested by the OSC.

Reporting Requirements for Operators Regulated by the RRC

(1) Crude oil spills over 5 barrels. For each spill exceeding 5 barrels of crude oil, the responsible operator must comply with the notification and reporting requirements of 16 TAC §3.20 (relating to notification of fire breaks, leaks, or blow-outs) and submit a report on a Form H-8 to the appropriate district office. The following information must be included:

(A) area (square feet), maximum depth (feet), and volume (cubic yards) of soil contaminated with greater than 1.0% by weight total petroleum hydrocarbons;

(B) a signed statement that all soil containing over 1.0% by weight total petroleum hydrocarbons was brought to the surface for remediation or disposal;

(C) a signed statement that all soil containing over 5.0% by weight total petroleum hydrocarbons has been mixed in place to 5.0% by weight or less total petroleum hydrocarbons or has been removed to an approved disposal site or to a secure interim storage location;

(D) a detailed description of the disposal or remediation method used or planned to be used for cleanup of the site;

(E) the estimated date of completion of site cleanup.

(2) Crude oil spills over 25 barrels. For each spill exceeding 25 barrels of crude oil, in addition to the report required in paragraph (1) of this subsection, the operator must submit to the appropriate district office a final report upon completion of the cleanup of the site. Analyses of samples representative of the spill site must be submitted to verify that the final cleanup concentration has been achieved.

(3) Crude oil spills of 5 barrels or less. Spills into the soil of 5 barrels or less of crude oil must be remediated to these standards, but are not required to be reported to the RRC. All spills of crude oil into water must be reported to the RRC.

General Land Office

Any person responsible for an unauthorized discharge of oil or the person in charge of any vessel or terminal facility from or at which an unauthorized discharge of oil has occurred, as soon as that person has knowledge of the discharge, shall:

(1) immediately notify the GLO at 1-800-832-8224 of the discharge, and

(2) undertake all reasonable actions to abate, contain, and remove pollution from the discharge.

On notification of a spill, the GLO will act as on-scene coordinator (OSC). The OSC shall ensure that response activities are consistent with the National Contingency Plan (NCP), the State Coastal Discharge Contingency Plan, State of Texas Oil and Hazardous Substances Spill Contingency Plan, and any other applicable plans.

Any responsible person or person or organization under the control of the responsible person shall comply with directions and orders of the OSC.

The only grounds upon which the OSC's orders and directions can be challenged are:

(1) they constitute an unreasonable threat to public safety or natural resources, or

(2) they conflict with the directions or orders of the federal OSC

The responsible person or his agent must state the grounds for his refusal to comply and must give written notice of the grounds for failure to comply within 48 hours of the refusal. Written notice of reasons for failure to comply with the orders or directions of the OSC shall be mailed to:

Division of Oil Spill Prevention and Response
Texas General Land Office
1700 North Congress Avenue
Austin, Texas 78701-1495

Initial Report Information

Initial Report to First Responders

If the spill is obviously endangering the public health or welfare through traffic hazard, explosion, fire, noxious or toxic gas, water contamination, or other means, immediately notify the local fire department, law enforcement authority, or emergency medical service as appropriate. When making these initial notifications to first responders, the caller should attempt to provide, at a minimum, the following information:

(a) name of caller and callback number;

(b) the exact location and nature of the incident;

(c) the extent of personal injuries and damage;

(d) the extent of fire;

(e) the wind direction and approximate velocity;

(f) the material involved, if easily identifiable, and warning placard or warning label information.

It is cautioned that only trained responders should approach a fire or spill.

The owner/operator of the facility or activity from which the spill originated should then be located and notified immediately. It is appropriate and beneficial, if not necessary, for local authorities to make this contact. The owner/operator should be able to deploy initial spill countermeasures on short notice.

Initial Report to the State

When making a telephone report of a spill or pollution complaint to the state, the notifier should be prepared to provide as much of the following information as possible:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, hazardous substances, or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

Any private citizen complaining of pollution may opt to remain anonymous.

Additional Notification Requirements for Persons Regulated by the TNRCC

Update Notification to the TNRCC

Responsible persons regulated by the TNRCC pursuant to 30 TAC Chapter 327 shall notify the TNRCC, as soon as possible and whenever necessary, to provide information that would trigger a change in the response to the spill or discharge.

Notice to Local Government

If the discharge or spill creates a potential for off-site human exposure, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate).

The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons.

In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the spill or discharge and the potential exposure.

Notice to property owner(s) or occupant(s)

As soon as possible, but no later than 2 weeks after the discovery of a spill or discharge, the responsible person shall reasonably attempt to notify the owner (if identifiable) or occupant of the property upon which the discharge or spill occurred as well as the occupants of any property that the responsible person reasonably believes is adversely affected.

Recommended Initial Response Actions

Human Safety

The protection of human life is paramount in any spill, discharge, or release incident. With regard to human safety, the following measures should be followed:

(a) avoid direct contact with the spilled material;

(b) avoid inhalation of any gases, fumes, vapors, or smoke. All personnel should stay upwind (some gases inhibit the sense of smell or may be dangerous at undetectable concentrations);

(c) move and keep people away from the incident scene; contact the nearest law enforcement authority for assistance, if necessary;

(d) attempt to determine and remove all ignition sources without unnecessarily endangering your own life;

(e) assess the situation with regard to injuries;

(f) contact the appropriate authorities and responsible parties and allow them to handle the response activities.

Substance Identification

One of the most important aspects of the initial response activities at a spill incident is identification of the substance involved. The first responsible authority on scene should attempt to make this determination. Under no circumstances should this authority attempt substance identification without adequate personal protection and without exercising extreme caution.

Direct identification of the substance involved in a transportation incident may be obtained from the following sources:

(a) Operators of the vehicle.

Vehicle operators should be able to identify the materials they are carrying. They should be located as soon as possible and questioned regarding the contents of their vehicle. Shipping papers identifying the substance(s) involved should be in their possession. They may also be able to provide information regarding the shipper, consignee, and manufacturer.

(b) Shipping papers.

For highway incidents, shipping papers identifying the vehicle cargo should be in the possession of the driver or located in the cab of the vehicle on the seat or in a holder on the inside of the door. In the event of a railway incident, shipping papers should be in the possession of the conductor or located in the engine and the caboose.

Shipping papers for waterborne vessels should be in the possession of the captain of the vessel, the person in charge of the watch, or located on the bridge or in the pilot house of the vessel. On barges, the shipping papers are carried in a tube or box on the barge.

(c) UN (United Nations) or NA (North America) material identification numbers.

There may be a black 4-digit identification number directly on warning placards or on individual orange panels on the tank, vehicle, or rail car ends. If not displayed on the vehicle ends, check the sides of the transport.

These numbers are hazard category codes that can be identified in the latest U.S. Department of Transportation (DOT) Emergency Response Guidebook or by contacting CHEMTREC. This number identifies generic groups of hazardous materials, e.g., No. 1203 for gasolines, fuel oils, etc.

(d) Information on containers.

In certain situations, information on containers will identify their contents. In other situations, the name and address of the shipper or consignee may be found on the containers. These parties may then be contacted directly or through CHEMTREC in an attempt to identify the materials involved.

(e) The shipping company.

The shipping firm or railway company involved in the incident should be able to identify the contents of their vehicle. Highway and rail vehicles often have unique identification numbers (in addition to the numbers described in (c) above) displayed on the ends and/or sides of each particular vehicle.

By contacting the company involved, either directly or through CHEMTREC, and providing the identification numbers when available, the contents of these particular vehicles may be identified.

If direct identification is impossible, or if any of the above methods of identification are prohibitive from a time or safety standpoint, attempt to identify as many of the chemical and physical properties of the substance as possible. Contact CHEMTREC or the TNRCC Emergency Response Unit and provide this information for assistance in identifying the material. The following properties should be identified:

1. color of the material;

2. physical state of the material (gas, liquid or solid);

3. odor (identification of the odor should not be done intentionally, but may be available through unintentional exposure);

4. noticeable sound;

5. abnormal or extreme heat;

6. abnormal or extreme cold (presence of frost);

7. pressure leaks; and

8. color of flame (if present).

Again, it cannot be overemphasized that only trained personnel should ever approach a fire or spill.

Obtaining Chemical Information

The TNRCC Emergency Response Unit is staffed by trained and experienced personnel with 24-hour access to reference materials on the hazardous properties of chemicals including computer access to a wide range of chemical identification, toxicological, and reference databases. TNRCC Emergency Response staff may be reached directly at 512/239-2507 or 512/463-7727 (24-hour phone number).

Emergency information concerning the hazardous properties of approximately 18,000 chemicals and chemical classes is available from the Chemical Transportation Emergency Center (CHEMTREC). CHEMTREC will provide immediate information via the telephone and will usually be able to notify the shipper of the material (if the incident is transportation related) or direct the caller to other sources of technical assistance.

CHEMTREC operates 24 hours a day, seven days a week, and may be reached, toll-free, at 800/424-9300.

Posting of Contaminated Area Warning Signs

Should the threat posed by contamination from a discharge or spill warrant the placement of Contaminated Area warning signs by TNRCC staff on affected property, the following rules regarding the use of such signs apply.

30 TAC §335.445. Placement of Warning Signs without Property Owner's Consent.

The commission shall issue an order to authorize the placement of warning signs on contaminated property if no written consent has been received for such placement from the property owner. In non-emergency situations, a hearing on the placement of warning signs shall be held before the commission in accordance with the contested case provisions of the Administrative Procedure Chapter, Sections 2001.051 et seq., Texas Government Code (Vernon).

30 TAC §335.446. Emergency Placement of Signs.

If an emergency exists which requires the immediate placement of warning signs on contaminated property to protect the public health and safety and the property owner has not provided written consent to the placement of warning signs on the contaminated property, an emergency order authorizing the placement of the warning signs may be issued without notice and hearing by the commission or with such notice and hearing as is practicable.

If an emergency order is issued by the commission pursuant to this section, the commission shall fix a time and place for a hearing to be held to affirm, modify, or set aside the emergency order. Notice of the hearing to affirm, modify, or set aside shall be in accordance with provisions set forth in Title 30 Texas Administrative Code Chapter 305, Subchapter B.

30 TAC §335.447. Reporting of Placement of Warning Signs.

Any commission employee who places or requests the placement of a warning sign on contaminated property must fle a report with the commission's central office in Austin within 10 days of such request or placement. The report must include the following information, if known:

(1) the name and office telephone number of the reporting individual;

(2) the name and telephone number of the commission personnel investigating the contamination;

(3) the location of the contaminated area;

(4) the name of the contaminant(s);

(5) the physical and chemical properties of the contaminant(s);

(6) the source of the contamination;

(7) the extent of the area impacted by the contamination;

(8) conditions affecting migration of the contamination including: surface water runoff, release(s) to the air, releases to the groundwater, prevailing weather, and/or any fire(s) involved;

(9) the extent of actual and potential exposure to the contamination including exposure by emergency personnel, occupational exposure, and real or potential exposure by the public, where this information is available;

(10) a description of the procedures used or proposed to be used to determine that warning signs are necessary and to determine the appropriate placement of the signs;

(11) [Reserved]

(12) when and where warning signs were placed or are proposed to be placed;

(13) whether written consent was obtained from the property owner; and

(14) a copy of any written consent obtained from the property owner.

Extent of Cleanup and Restoration Activities

For spills of oil and hazardous substances or other substances and releases or threatened releases of hazardous waste, cleanup and restoration activities will be considered complete when so acknowledged by either a Texas Natural Resource Conservation Commission (TNRCC), General Land Office (GLO), or Railroad Commission of Texas (RRC) representative.

Texas Natural Resource Conservation Commission

The objective of each spill cleanup should be to return the site to prespill or background conditions. Actions required in response to a spill are described in 30 TAC 327.5 which contains a provision for the completion of a cleanup under the Risk Reduction Rules in 30 TAC 335.8 or other TNRCC riskbased corrective action rules.

Cleanup standards are not established for total petroleum hydrocarbons (TPH) due to lack of toxicity values. Concentrations of constituents of concern for which toxicity values have been established (e.g. benzene) should be determined and compared to health-based standards.

In instances where no compounds are present for which toxicity values have been determined, then the determination of an acceptable level of residual TPH should be based upon other factors including this guidance borrowed from the PST program:

- No liquid product should be left in the soil.
- The hydrocarbons should not generate vapors which exceed 25% of the lower explosive limit (LEL), measured with a properly functioning and calibrated combustible gas indicator.
- The TPH should not harm vegetation, especially where the vegetation is a food source to animals.

- The TPH concentrations should not create an odor nuisance.

- Site monitoring data should indicate that TPH levels are stable or declining.

Cleanup standards for polychlorinated biphenyls (PCBs) require that PCBs spilled to soil must be reported and the cleanup level must be less than 1 ppm PCB. This is based on the designation of PCBs as a hazardous substance subject to the reporting requirements outlined in the Notification Requirements Section of this Plan.

Spills of non-PCB mineral oil to soil are reportable when the quantity spilled is 25 gallons or more and, as in all cases, cleanup of the spilled material is mandated. Cleanup levels relative to TPH are still under development and until such time as they are established specific recommendations or requirements will be made on a case-by-case basis.

All such oil releases less than 25 gallons are to be remediated to the extent that pollution of surface water or groundwater will not occur. TPH concentrations will be of a concern when impacts to state waters can or has occurred or the issue is raised by a responsible party or by an impacted third party.

During the course of cleanup and restoration activities, TNRCC staff shall consult with representatives of the other state agencies concerning the extent of cleanup activities. Likewise, all involved state agencies should consult with the TNRCC concerning costs that the state may recover.

The state has a cause of action against any responsible person for recovery of expenditures out the fund and costs that would have been incurred or paid by the responsible person if the responsible person had fully carried out the duties under §26.266 of the Texas Water Code, including reasonable costs of reasonable and necessary scientific studies to determine impacts of the spill on the environment and natural resources and to determine the manner in which to respond to spill impacts, costs of attorney services, out-of-pocket costs associated with state agency actions, and costs of remediating injuries proximately caused by reasonable cleanup activities.

This will enable the executive director of the TNRCC to give proper notice to the responsible person as is necessary to preserve the state's right to a cause of action for recovery of twice the costs incurred in cleaning up the spill or discharge.

Railroad Commission of Texas

16 TAC §3.91. Cleanup of Soil Contaminated by a Crude Oil Spill

(a) Terms.

The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Free oil—The crude oil that has not been absorbed by the soil and is accessible for removal.

(2) Sensitive areas—These areas are defined by the presence of factors, whether one or more, that make an area vulnerable to pollution from crude oil spills.

Factors that are characteristic of sensitive areas include the presence of shallow groundwater or pathways for communication with deeper groundwater; proximity to surface water, including lakes, rivers, streams, dry or flowing creeks, irrigation canals, stock tanks, and wetlands; proximity to natural wildlife refuges or parks; or proximity to commercial or residential areas.

(3) Hydrocarbon condensate—The light hydrocarbon liquids produced in association with natural gas.

(b) Scope.

These cleanup standards and procedures apply to the cleanup of soil in non-sensitive areas contaminated by crude oil spills from activities associated with the exploration, development, and production, including transportation, of oil or gas or geothermal resources as defined in 3.8(a)(30) of this title (relating to water protection). For the purposes of this section, crude oil does not include hydrocarbon condensate.

These standards and procedures do not apply to hydrocarbon condensate spills, crude oil spills in sensitive areas, or crude oil spills that occurred prior to the effective date of this section. Cleanup requirements for hydrocarbon condensate spills and crude oil spills in sensitive areas will be determined on a case-by-case basis.

Cleanup requirements for crude oil contamination that occurred wholly or partially prior to the effective date of this section will also be determined on a case-by-case basis. Where cleanup requirements are to be determined on a case-by-case basis, the operator must consult with the appropriate district office on proper cleanup standards and methods, reporting requirements, or other special procedures.

(c) Requirements for cleanup.

(1) Removal of free oil.

To minimize the depth of oil penetration, all free oil must be removed immediately for reclamation or disposal.

(2) Delineation.

Once all free oil has been removed, the area of contamination must be immediately delineated, both vertically and horizontally. For purposes of this paragraph, the area of contamination means the affected area with more than 1.0% by weight total petroleum hydrocarbons.

(3) Excavation.

At a minimum, all soil containing over 1.0% by weight total petroleum hydrocarbons must be brought to the surface for disposal or remediation.

(4) Prevention of stormwater contamination.

To prevent stormwater contamination, soil excavated from the spill site containing over 5.0% by weight total petroleum hydrocarbons must immediately be:

(A) mixed in place to 5.0% by weight or less total petroleum hydrocarbons; or

(B) removed to an approved disposal site; or

(C) removed to a secure interim storage location for future remediation or disposal. The secure interim storage location may be on site or off site. The storage location must be designed to prevent pollution from contaminated stormwater runoff.

Placing oily soil on plastic and covering it with plastic is one acceptable means to prevent stormwater contamination; however, other methods may be used if adequate to prevent pollution from stormwater runoff.

(d) Remediation of soil.

(1) Final cleanup level.

A final cleanup level of 1.0% by weight total petroleum hydrocarbons must be achieved as soon as technically feasible, but not later than one year after the spill incident. The operator may select any technically sound method that achieves the final result.

(2) Requirements for bioremediation.

If on-site bioremediation or enhanced bioremediation is chosen as the remediation method, the soil to be bioremediated must be mixed with ambient or other soil to achieve a uniform mixture that is no more than 18 inches in depth and that contains no more than 5.0% by weight total petroleum hydrocarbons.

(e) Alternatives.

Alternatives to the standards and procedures of this section may be approved by the commission for good cause, such as new technology, if the operator has demonstrated to the commission's satisfaction that the alternatives provide equal or greater protection of the environment. A proposed alternative must be submitted in writing and approved by the commission.

Texas Parks and Wildlife Department

Periodically, a cleanup may involve the removal of contaminated material from beaches and streambeds. Chapter 86 of the Parks and Wildlife Code grants the Texas Parks and Wildlife Department (TPWD) the authority to regulate, control, and protect marl and sand of commercial value and all gravel, sand, and mudshell located within the tidewater limits of the state and on islands within those limits, and within the freshwater areas of the state not embraced by a survey of private land and on islands within those areas.

TNRCC Spill Waste Classification and Disposal

Management of Spill Waste

Chapter 26.262 of the Texas Water Code states that "it is the policy of the state to prevent the spill or discharge of hazardous substances into the waters in the state and to cause the removal of such spills and discharges without undue delay." To successfully complete this mission, TNRCC assumes the authority to direct the appropriate management of wastes and other residual materials which result from spills within the agency's jurisdiction.

Industrial versus Nonindustrial Spill Waste

Industrial solid waste is defined in 30 TAC §335.1 as "solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operation, which may include hazardous waste as defined in this section."

Residues of spills which occur during transportation and spills which are otherwise not resulting from, or incidental to, an industrial process and which do not generate a hazardous waste (as defined in 40 CFR 261), do not meet the definition of an industrial solid wastes.

However, the disposal facilities authorized to receive contaminated media by TNRCC require that spill wastes be classified, documented, and transported like industrial wastes prior to acceptance in most cases.

Use of TNRCC Waste Code

An eight-digit TNRCC waste code is required prior to management in a facility authorized by TNRCC to accept contaminated media. The TNRCC waste classification system is based on self- classification of waste by the generator. The method for assigning the eight-digit waste code is explained in 30 TAC Chapter 335 Subchapter R.

Unique Sequence Code

Industrial and hazardous spill wastes require a unique 4-digit sequence code (as part of the 8-digit waste code) used for computerized tracking at the TNRCC. This sequence code is assigned by TNRCC ERU staff for spill related wastes. To obtain the sequence code complete TNRCC Form 757, "Request for Texas Waste Code for Shipment of Class 1,2,3 and EPA Hazardous Waste." A copy of TNRCC Form 757 is included in this section.

The requests may be mailed or telefaxed to (512)239-2527. The turnaround time is generally 3 business days. Generators should contact the TNRCC ERU if emergency conditions call for a quicker response. This form is also used to request temporary state and EPA generator ID numbers (discussed below).

Generic Sequence Code

Generators of spill wastes which are not industrial and not hazardous may self assign the generic sequence code "SPIL" as part of the eight-digit waste code.

Manifest Required

Shipment of Class 1 industrial and hazardous spill wastes to an off-site waste management facility must be documented through use of a Uniform Hazardous Waste Manifest (except for conditionally exempt small quantity generators and industrial generators that generate less than 100 kilograms of nonhazardous Class I waste per month).

These forms and additional information regarding this requirement may be obtained by calling the TNRCC Waste Evaluation Section (512)239-6840.

Please note that pursuant to 30 TAC §335.93(b), "If a discharge of hazardous waste occurs during transportation and a Commission official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest."

Temporary EPA Generator ID Numbers

A 12-digit EPA generator ID number is required on manifests for shipment of hazardous waste. Generators of hazardous spill wastes may request a site-specific temporary EPA generator ID number from the TNRCC ERU using TNRCC Form 757 (described above).

State Generator ID Number

Either a unique five-digit state generator ID number or a generic, temporary state generator ID number must be shown on the manifest. Generators of spill wastes may request a site-specific temporary state generator ID number from the TNRCC ERU using TNRCC Form 757 (described above).

Management of Spill Waste as Nonindustrial Waste

Options available for nonindustrial spill waste (other than disposal) include treatment at a facility registered by the TNRCC Petroleum Storage Tank program to receive contaminated media, on site treatment, reuse, reclamation and recycling. Proposals for the appropriate management of spill residues which are not industrial wastes must receive the approval of the TNRCC regional office on scene coordinator or TNRCC ERU central office staff.

Use of a Petroleum Storage Tank Division (PST) registered facility

The PST division of TNRCC has entered into an agreement with TNRCC ERU to allow certain contaminated soils from spills and releases to be accepted and treated at soil treatment and recycling facilities regulated under 30 TAC Chapter 334 Subchapter K.

Petroleum contaminated soils which are nonindustrial and not hazardous from spills and releases (and that are basically the same as contaminated soils from PST-regulated remediations) may be considered for these facilities. TNRCC approval is given on a case-by-case basis and requires specific approval of both the waste stream and PST registered facility. Contact TNRCC ERU staff at (512)239-2508 for assistance.

Pursuant to the generator notification requirements of 30 TAC Section 335.6, the generator of a solid waste is required to submit to the TNRCC detailed written information pertaining to the composition and characteristics of the waste. Please complete all applicable sections. Incomplete forms will delay processing. Assigned waste codes cannot be changed without prior approval from the TNRCC.

TNRCC Acceptance of Foreign Laboratories' Analytical Results

Background

The TNRCC requires permittees and others to submit lab results in a number of circumstances, for example, to substantiate the classification of solid waste. Although the TNRCC sometimes performs quality assurance audits of in-state laboratories, the state does not have a lab certification program and does not inspect out-of-state labs.

However, the agency generally requires that all lab results to be considered by the TNRCC be performed using EPA-approved methods for wastewater-, surface water– and solid waste–related analysis, and the corresponding quality control results must be included with each sample result.

North American Free Trade Agreement (NAFTA)

The North American Free Trade Agreement (NAFTA) was designed to remove national barriers to trade between the U.S., Mexico, and Canada. Two chapters in particular are relevant to the foreign lab situation. Chapter 12 (Cross-order Trade in Service) applies generally to measures affecting the purchase or use of, or payment for, a service.

Article 1202 (National Treatment) provides that "Each Party [including states and provinces] shall accord to service providers of another Party treatment no less favorable than that it accords, in like circumstances, to its own service providers."

Analytical testing is also addressed in Chapter 9 of NAFTA (Standards-Related Measures). This chapter defines standards-related measure to include "conformity assessment procedure," which in turn is defined as "any procedure used, directly or indirectly, to determine that a technical regulation or standard is fulfilled, including sampling, testing, inspection, evaluation, verification, monitoring, auditing, assurance of conformity, accreditation, registration or approval...."

Because the TNRCC requires analytical testing to ensure that its technical regulations are met, analytical testing meets the definition of conformity assessment procedure, and therefore is one type of standards-related measure addressed in Chapter 9.

Under this chapter, states may establish their own technical regulations and are entitled to provide conformity assessment procedures such as sampling, testing, or inspection to determine that these technical regulations or standards are fulfilled. However, Article 904(3) provides:

Each Party shall, in respect of its standards-related measures, accord to goods and service providers of another Party:

(a) national treatment in accordance with Article 301 (Market Access) or Article 1202 (Cross- Border Trade in Services); and

(b) treatment no less favorable than that it accords to like goods, or in like circumstances to service providers, of any other country.

Thus, the TNRCC cannot refuse to accept analytical results based only on the fact that the lab that did the work is located in Mexico or Canada.

Taken together, Chapters 9 and 12 of NAFTA prevent states from discriminating against Mexican or Canadian labs by refusing to accept results from these labs. However, NAFTA does not prohibit the TNRCC from holding foreign labs to the same standards applicable to domestic labs, nor is there any provision in NAFTA that would prevent the agency from requiring that analytical results be submitted in a particular language.

General Agreement on Tariffs and Trade (GATT)

The General Agreement on Tariffs and Trade (GATT), which applies to measures taken by regional or local governments of its member nations, may also prohibit the TNRCC from discriminating against foreign labs. Annex IB to the GATT provides:

With respect to any measure covered by this Agreement, each Member shall accord immediately and unconditionally to services and service suppliers of any other Member, treatment no less favourable than that it accords to like services and service suppliers of any other country.

Under this all-or-nothing provision, members may discriminate against all other member nations, but they may not treat some nations more favorably and others less favorably. Because NAFTA requires the TNRCC to accept lab results from Mexico and Canada, this Annex to the GATT requires that labs located in other GATT member nations must receive similar treatment.

Commerce Clause of the United States Constitution

A state agency policy that requires members of its regulatory community to use domestic laboratories only might be considered a protectionist measure that violates the Commerce Clause of the U.S. Constitution.

Hazardous waste is an object of commerce subject to protection under the Commerce Clause. Nat'l Solid Wastes Management Assoc. v. Alabama Dep't of Envtl. Management, 910 F.2d 713 (11th Cir. 1990).

Because the Constitution gives Congress the power to regulate interstate and foreign commerce, state laws that restrict the movement of hazardous waste across state or national boundaries or otherwise affect interstate commerce are subject to constitutional scrutiny. Id. However, Congress's broad powers to regulate both interstate and foreign commerce must be balanced against the states' police powers to regulate matters of local concern.

See B.J. Wynne, III, Interstate Waste: A Key Issue in Resolving the National Hazardous Waste Capacity Crisis, 32 S. Tex. L. Rev. 601, 619 (1991).

Accordingly, the test applied in deciding whether a state regulation violates the Commerce Clause is whether the state regulation is basically a protectionist measure, or whether the statute is directed to legitimate local concerns, with only incidental effects on commerce, and there are no less discriminatory means of accomplishing the state's objective. Id.; City of Philadelphia v. New Jersey, 437 U.S. 617 (1978).

Conclusion

By requiring favorable treatment of Mexican and Canadian service providers and by providing for equitable administration of standards-related measures, NAFTA prevents the TNRCC from refusing to accept analytical results generated by Mexican or Canadian laboratories.

Because the TNRCC may not categorically refuse to accept Mexican and Canadian lab results under NAFTA, the GATT's fairness provisions require that other members' laboratories must be treated on the same footing.

Additionally, any discriminatory policy is vulnerable to Constitutional attack under the Commerce Clause as a protectionist measure.

Therefore, a state agency's refusal to accept results of analytical tests run in non-U.S. laboratories would violate the Commerce Clause of the U.S. Constitution, the North American Free Trade Agreement, and possibly other foreign trade agreements such as the GATT. However, the TNRCC may apply its normal quality assurance criteria to lab results from foreign labs.

TNRCC Acceptance Requirements

As used in this context, acceptance means that the data generated by foreign laboratories are potentially useful in the decision-making process; however, it does not constitute "validation" of the data or "accreditation" of the laboratory. The TNRCC will consider the following items while evaluating foreign laboratory analytical results.

1. The method used to obtain the data must be a U.S. EPA-approved method described in Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, EPA SW-846, Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79/020, Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM) Standard Methods or any other EPA-approved methods; or the generator of the foreign waste may request in writing that the TNRCC review and approve an alternate method.

   A generator who proposes to use an alternate method must validate the alternate methods by demonstrating that the method is equal to or superior in accuracy, precision, and sensitivity to the corresponding SW-846, EPA-600/4-79/200, Standard Method, or ASTM method previously mentioned.

2. The analytical results must be accompanied by identification of method and corresponding quality assurance and quality control data for the method used to evaluate the constitutent(s) of concern reported.

   Quality assurance refers to identification, precision, accuracy, and error determination. Quality control refers to holding times, blank contamination, spike recovery, and detection capabilities.

3. Analytical results must be accompanied by a chain-of-custody record.

4. Analytical results must be written in a language that can be easily translated by knowledgeable agency personnel. If there is no agency person that can read the language used to report the analytical results, then it should be the responsibility of the generator to translate them.

5. If the TNRCC has any questions about quality assurance, the TNRCC will contact the U.S. agent representing the foreign waste generator.

Additional Requirements Specific to Transporters

30 TAC §312.146. Transporters—Discharge or Spills.

In the event of a discharge or spill of waste (applicable only to sludges and grease/grit trap wastes) during collection or transportation, the collector or transporter must take appropriate action to protect human health and the environment, e.g., notify local law enforcement and health authorities; dike the discharge area; clean up any waste discharge that occurs during transportation; or take such action as may be required or approved by federal, state, or local officials having jurisdiction so that the waste discharge no longer presents a public health or environmental problem.

Transporters are responsible for reporting certain spills to the executive director in accordance with requirements of the State of Texas Oil and Hazardous Substance Spill Contingency Plan and the Texas Water Code Chapter (sic; Section) 26.039.

30 TAC §330.1005. Transporters of Medical Waste.

(a) The requirements of this section are applicable to any person who collects for transport or who transports untreated medical waste which is designated as a special waste from health care related facilities unless that person is exempt under the provisions of subsection (p) of this section.

(b) Transporters shall register their operations with the Commission no later than the effective date of these sections. Persons who plan to transport untreated special waste from health care related facilities after the effective date of this section shall register with the department prior to commencing operations.

Registration forms will be provided by the department upon request. The following information must be provided for registration:

(1) name, address, and telephone number of registrant;

(2) name, address, and telephone number of partners, corporate officers, and directors;

(3) description of vehicles to be registered, including:

(A) make, model, and year of vehicle;

(B) motor vehicle identification number;

(C) vehicle license plate (tag) number including state and year; and

(D) name of vehicle owner; and

(4) name and driver's license number (including the state issuing the license) for all vehicle operators.

(c) Persons who apply to the department for registration and receive said registration shall maintain a copy of the registration form, as annotated by the department with an assigned registration number, at their designated place of business and in each vehicle used to transport untreated special waste from health care related facilities.

(d) Registrations shall expire 12 months after the date of issuance. Registrations are required to be renewed annually prior to the expiration date. Applications for renewal must contain the same information as the initial registration and shall be submitted to the department at least 60 days prior to the expiration date. An application for renewal may be obtained from the Texas Natural Resource Conservation Commission.

(e) Transporters shall notify the department, by letter, within 15 days of any changes to their registration if:

(1) the amount of untreated special waste from health care related facilities or total operation is expanded by 50% over that originally registered;

(2) the office or place of business is moved;

(3) the name of registrant or owner of the operation is changed;

(4) the name of the partners, corporate directors, or corporate officers change; or

(5) additional drivers are employed. The notification for additional drivers may be done at 6-month intervals.

(f) Revocation or denial of registration procedures are as follows.

(1) The department may revoke a registration or refuse to issue a registration for:

(A) failure to maintain a complete and accurate record of shipments of waste;

(B) failure to maintain vehicles in safe working order as evidenced by citations from the Texas Department of Public Safety or local traffic law enforcement agencies;

(C) falsification of waste shipping documents or shipment records;

(D) delivery of untreated special waste from health care related facilities to a facility not authorized to handle the waste;

(E) failure to comply with any rule or order issued by the department pursuant to the requirements of this chapter;

(F) failure to submit required annual reports or pay registration fees;

(G) failure to maintain insurance or provide proof of insurance as required in subsection (j) of this section;

(H) illegal disposal of untreated or treated medical waste; or

(I) collection or transportation of medical waste without registration as required in this section.

(2) Appeal of revocation or denial procedures are as follows.

(A) An opportunity for a formal hearing on the revocation of registration may be requested in writing by the registrant by certified mail, return receipt requested, provided the request is postmarked within 20 days after a notice of revocation has been sent from the department to the last known address of the registrant.

If the registration is revoked, a transporter shall not transport untreated special waste from health care related facilities regulated under this subchapter. The period of revocation shall be not less than one year nor more than 5 years.

(B) An opportunity for a formal hearing on the denial of registration or renewal of registration may be requested in writing by the applicant by certified mail, return receipt requested, provided the request is postmarked within 20 days after a notice of denial has been sent from the department to the address listed on the application.

If the registration is denied, a person shall not collect or transport untreated special waste from health care related facilities regulated under this subchapter.

(g) Requirements for vehicles used to collect or transport untreated medical waste are as follows.

(1) Vehicles used to collect and or transport medical waste shall:

(A) have a fully enclosed, leak-proof, cargo-carrying body, such as a cargo compartment, box trailer, or roll-off box;

(B) protect the waste from mechanical stress or compaction;

(C) carry spill cleanup equipment including, but not limited to, disinfectants, absorbent materials, personal protective equipment, such as gloves, coveralls, and eye protection, and leak-proof containers or packaging materials; and

(D) have the following identification on the two sides and back of the cargocarrying compartment in letters at least three inches high:

(the name of the transporter)
TDH: (the TDH-assigned registration number)
Caution: Medical Waste.

(2) The cargo compartment of the vehicle shall:

(A) be maintained in a sanitary condition;

(B) be locked when the vehicle is in motion;

(C) be locked when waste is present in the compartment except during loading or unloading of waste;

(D) have a floor and sides made of an impervious, nonporous material; and

(E) have all discharge openings securely closed during operation of the vehicle.

(h) Vehicles used to transport medical waste shall not be used to transport any other material until the vehicle has been cleaned and the cargo compartment disinfected.

A written record of the date and the process used to clean and disinfect the vehicle shall be maintained for three years unless the department shall direct a longer holding period. The record must identify the vehicle by motor vehicle identification number or license tag number.

The owner of the vehicle, if not the registrant, shall be notified in writing that the vehicle has been used to transport medical waste and when and how the vehicle was disinfected.

(i) Shipments of untreated special waste from health care related facilities shall not be commingled or mixed during transport or storage with trash, rubbish, garbage, hazardous waste, asbestos, or radioactive waste regulated under Chapter 289 of this title (relating to Occupational Health and Radiation Control).

(j) Each transporter shall, unless otherwise exempted, excluded, or prohibited by law, provide evidence of financial responsibility as follows:

(1) a general liability policy with $1 million per occurrence and $2 million aggregate limits;

(2) a combined, single-limit automobile liability insurance policy with limits of at least $1 million per accident; and

(3) either a pollution liability policy with a flat limit of $1 million; or

(4) an irrevocable letter of credit as follows.

(A) Each transporter shall provide an irrevocable letter of credit from a recognized financial institution payable to the Texas Department of Health (department) in the following amount:

(i) if the transporter registers three or less self-contained trucks or transport vehicles (not tractor-trailer units), a letter for $10,000;

(ii) if the transporter registers more than three self-contained trucks or transporter vehicles (not tractor-trailer units), a letter for $35,000;

(iii) if the transporter registers three or less tractor-trailer vehicles, a letter for $25,000; or

(iv) if the transporter registers more than three tractor-trailer vehicles, a letter for $50,000.

(B) Requests for registration or renewal received after the effective date of this paragraph shall comply with the provisions of this paragraph. Transporters registered with the department prior to the effective date of this paragraph may comply with the requirements of this subsection or comply with the requirements in effect at the time of their registration until their renewal date.

(k) The transporter shall furnish the generator a signed receipt for each shipment at the time of collection of the waste. The receipt shall include the name, address, telephone number, and registration number of the transporter. The receipt shall also identify the generator by name and address, and shall list the weight of waste collected and date of collection.

If certified scales are not available, the number of containers shall be listed, and the transporter must provide the generator with a written statement of the total weight of the containers within 30 days.

(l) The transporter shall initiate and maintain a record of each waste shipment collection and deposition. Such record shall be in the form of a waste shipping document or other similar documentation approved by the department. Forms will be provided by, or may be approved by, the department.

The transporter shall retain a copy of all waste shipping documents showing the collection and disposition of the medical waste. Copies of waste shipping documents shall be retained by the transporters for three years in the main transporter office and made available to the department upon request. The waste shipping document shall include the:

(1) transporter's name, address, telephone number, and department's assigned transporter registration number;

(2) name and address of the person who generated the untreated special waste from health care related facilities and the date collected;

(3) number of containers of untreated special waste from health care related facilities collected for transportation and the total weight of the containers from each generator which must be added when certified scales are available;

(4) name of persons collecting, transporting, and unloading the medical waste;

(5) date and place where the untreated special waste from health care related facilities was deposited or unloaded;

(6) identification (permit or registration number, location, and operator) of the facility where the untreated special waste from health care related facilities was deposited; and

(7) name and signature of facility representative acknowledging receipt of the untreated special waste from health care related facilities and the weight of waste received.

(m) The transporter must be able to provide documentation of each waste shipment from the point of collection through and including the unloading of the waste at a facility permitted to accept the waste. The transporter is responsible for the proper collection and deposition of untreated medical waste accepted for transport.

(n) Shipments of untreated special waste from health care related facilities shall be deposited only at a facility which has been permitted by the department to accept untreated special waste from health care related facilities.

Untreated special waste from health care related facilities may be deposited at facilities permitted by the Texas Natural Resource Conservation Commission (commission) only with the written authorization of the commission and the written concurrence of the department.

Untreated special waste from health care related facilities which is transported out of the state must be deposited at a facility which is permitted by the appropriate state agency having jurisdiction to accept such waste.

(o) Transporters shall not accept untreated medical waste which is not packaged in accordance with the provisions of §330.1004(I) of this title (relating to Generators of Medical Waste). Transporters shall not accept containers of medical waste which are leaking or damaged unless or until the shipment has been repackaged.

(p) Exemptions are as follows.

(1) Generators who generate less than 50 pounds per month of special waste from health care related facilities may transport their own untreated waste to a registered medical waste collection station, a transfer station, a storage facility, or a processing facility without complying with the requirements of this section.

Untreated waste may be transported to a landfill only in accordance with the provisions of §330.136 of this title (relating to Disposal of Special Wastes).

(2) Generators who generate more than 50 pounds per month of special waste from health care related facilities may transport their own waste to a transfer station, a storage facility, or a processing facility and shall comply with subsections (g)-(o) of this section; they shall be exempt from subsections (a)-(f) of this section.

These generators must notify the department that they are transporting their own waste and must submit an annual summary report. Untreated waste may be transported to a landfill only in accordance with the provisions of §330.136 of this title (relating to Disposal of Special Wastes).

(3) Generators who are located in facilities contiguous to a permitted processing facility may transport their untreated waste to the processing facility without complying with the requirements of §330.1004(I) of this title (relating to Generators of Medical Waste) provided the waste is identified as untreated waste, and provided the waste is not transported along a public roadway or right-of-way.

30 TAC §335.93. Hazardous Waste Discharges.

(a) In the event of a discharge of hazardous waste during transportation, the transporter shall notify the commission as soon as possible and not later than 24 hours after the occurrence according to the provisions of the Texas Water Code, §26.039, and the procedures set out in the State Oil and Hazardous Substances Spill Contingency Plan, and also take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge).

(b) If a discharge of hazardous waste occurs during transportation and a Commission official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.

(c) An air, rail, highway, or water transporter who has discharged hazardous waste must also:

(1) Give notice, if required by 49 Code of Federal Regulations §171.15, to the National Response Center (800-424-8802 or 202-426-2675); and

(2) Report in writing as required by 49 Code of Federal Regulations §171.16 to the Director, Office of Hazardous Waste Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 Code of Federal Regulations §153.203 for oil and hazardous substances.

(e) A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by the commission so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

Natural Resource Damage Assessment

Trustee Roles and Responsibilities

Introduction

The purpose of this chapter is to describe general Natural Resource Trustee (trustee) authorities, responsibilities, and roles following a discharge of oil or a release of hazardous substances. The three major areas of trustee responsibility include prevention and/or minimization of injury during the response phase, assessment of injury during and after response, and restoration of natural resources injured or natural resource services lost due to the discharge or release.

Although there are legal distinctions between responsibilities for response and natural resource damage assessment (NRDA) activities, this distinction does not preclude overlap in terms of required actions and information needs during the response phase.

The differences between these responsibilities, and how coordination should occur between Natural Resource Trustee and response agency representatives performing their respective duties will be detailed in this chapter.

Statutory Authority and Agreements

Under the following authorities, different state and federal agencies and Indian Tribal Governments are designated as Natural Resource Trustees to act on behalf of the public.

- Oil Pollution Act of 1990 (OPA; 33 USCA §2706)
- Federal Water Pollution Control Act (FWPCA; 33 USCA §1321(j)(4))
- Comprehensive Environmental Response and Compensation Act (CERCLA; 42 USCA §9607(f)(1))
- Oil Spill Prevention and Response Act of 1991 (OSPRA; 40 Tex. Nat. Res. Code)
- National Contingency Plan (NCP), Federal Register vol. 59, no. 178, 47451; 43 CFR Part 11, NRDA

Further, the state of Texas has adopted Natural Resource Damage Assessment (NRDA) rules for oil spills in coastal environments (31 TAC §20) to address assessment procedures and protocols for determining, quantifying and valuing natural resource injury and loss of services. Federal NRDA regulations for oils spills promulgated under OPA-90 (15 CFR Part 990) were recently revised.

The OPA rules are compatible with the state rules and available for use to both state and federal trustees.

State of Texas and federal trustee agencies (DOI, NOAA) have developed a state/federal memorandum of agreement that outlines a cooperative working relationship (executed 1995).

Designated trustee agencies are:

Federal

National Oceanic and Atmospheric Administration (NOAA)
Department of the Interior (DOI)
Other federal agencies; e.g., Department of Energy, Department of Defense, Department of Agriculture
Indian Tribal Governments

State

Texas Natural Resource Conservation Commission (TNRCC)
Texas Parks and Wildlife Department (TPWD)
Texas General Land Office (GLO)

In some cases, a single agency will have both regulatory/response (e.g., on-scene coordinator (OSC), scientific support coordinator (SSC)) and trustee/NRDA responsibilities for a release of hazardous substances or discharge of oil.

Agencies with the potential for dual responsibilities include the GLO (coastal oil spills), the TNRCC (hazardous substances spills, inland oil spills), and NOAA (releases of oil or hazardous substances affecting NOAA resources). These agencies should strive to have separate personnel performing response and NRDA roles.

Trustee Objectives

CERCLA, OPA, OSPRA, and the NCP define trustee responsibilities as including protection of natural resources from releases or threat of releases of oil or hazardous substances, and restoring resources injured or lost as a result of a discharge of oil or release of hazardous substances.

Input by trustees to the planning section or directly to the FOSC/SOSC during the response phase may reduce the impact of the spill or release on natural resources, lessening the potential need for restoration and the associated natural resource damages liability to the potentially responsible party.

After a discharge of oil or release of hazardous substance, or the threat of discharge or release, the trustees' two primary roles are:

- to advise the OSC on response and remedial actions with the intent to minimize or mitigate the effects of a release or discharge on natural resources, and

- to restore injured natural resources through the Natural Resource Damage Assessment and Restoration process.

Trustees must be notified and consulted by the OSC on all significant releases of hazardous materials or discharges of oil.

For discharges of oil, recommendations on what immediately constitutes a significant discharge are as follows:

Coastal: > 500 gallons (12 bbls)

Inland: > 500 gallons (12 bbls)

Notification is also required if discharges of lesser volumes of oil result in potential impacts to natural resources, including oiling of habitats, or occur in sensitive environments such as wetlands.

For releases of hazardous materials, due to the potential for relatively small volumes of hazardous materials to create extremely toxic effects in the environment, trustees must be notified and consulted on all releases of hazardous materials which have the potential to result in injuries to natural resources.

Notification

Explanation of Process as Required by the NCP and OSPRA

- 40 CFR §300.135(j)(1) The OSC shall ensure that the trustees for natural resources are promptly notified of discharges of oil or releases of hazardous materials. Also see §300.305(e) and §300.410(h).

- 31 TAC §20.20(a) The Texas General Land Office shall notify all state trustees of all reported discharges of oil into coastal waters.

- 40 CFR §300.615 (b) Trustees are responsible for designating to the Regional Response Teams (RRTs) and the Area Committees, for inclusion in the Regional Contingency Plan (RCP) and Area Contingency Plans (ACPs), appropriate contacts to receive notifications from the OCSs/Remedial Project Manager (RPMs) of discharges or releases.

- 31 TAC §20.20 (b) After observing the characteristics of the unauthorized discharge of oil and the affected natural resources, if the state on-scene coordinator (SOSC) determines that the quantity or properties of the oil discharged or the natural resources potentially impacted by the oil differ significantly from the initial report, the SOSC shall promptly provide the state trustees with an updated report.

List of Contacts

To fulfill the notification requirements outlined in the NCP and OSPRA the following trustee representatives should be contacted by the OSC:

DOI:
(505) 766-3565
(505) 797-0556 24 hr.
(505) 766-1059 Fax

NOAA:
(206) 526-6949
(206) 526-6317 24 hr. number
(206) 526-6329 Fax

TNRCC:
(512) 239-2523
(512) 239-2469 Fax

TPWD:
(512) 389-4640
(512) 389-4848 24 hr.
(512) 398-4799 Fax

GLO:
(512) 475-1395
(512) 463-5367 Fax

Organizational Structure and Process

The NCP directs OSCs to work with all Natural Resource Trustees during specific response activities so trustees may help ensure that important natural resources are protected when they are at risk from an actual or threatened oil discharge and/or hazardous substance release.

The NCP further directs trustees to provide timely advice to the OSC concerning recommended actions in reference to natural resources potentially affected by oil discharges and/or hazardous substance releases. During emergency response, Natural Resource Trustees will:

(1) provide technical assistance to the OSC on appropriate response techniques within environmentally sensitive areas;

(2) direct wildlife recovery and rehabilitation activities;

(3) provide information to the OSC on threatened and endangered species and their supporting habitats;

(4) provide information to the OSC on archaeological, cultural, and historic sites; and

(5) provide information on other natural resources and land areas under their jurisdiction and many other types of scientific expertise to the OSC.

Trustees have the following resources and relevant expertise to provide to the OSC during a spill event:

NOAA: NOAA acts as trustee for natural resources managed or controlled by the Department of Commerce and for natural resources that are found in, under, or using waters navigable by deep-draft vessels, tidally influenced waters, or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf.

Examples of the NOAA's trusteeship include the following natural resources and their supporting ecosystems:

All life stages of marine fishery resources; anadromous and catadromous fish throughout their ranges; certain endangered and threatened species and marine mammals; tidal wetlands; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

The NOAA Scientific Support Team, headed by the Scientific Support Coordinator (SSC), works directly for the OSC and does not represent NOAA's trustee interests.

DOI: Natural resources under the trusteeship of the DOI include:

(1) resources on, over, or under lands owned by the United States and managed by the DOI. Examples include resources in national parks, monuments, and seashores, national wildlife refuges and fish hatcheries, public lands and other project lands and properties;

(2) natural resources, not on lands described above, for which the DOI has specific authority to manage or protect.

Examples include mineral resources on the outer continental shelf, federal minerals on private or non-Interior lands, water resources stored or regulated by Interior projects, migratory birds and certain anadromous fish, certain endangered and threatened species and marine mammals and wild and scenic rivers; and

(3) natural resources protected by treaty or other authority pertaining to Native American tribes or located on lands held by the United States in trust for Native American tribes, communities, or individuals.

There are eight bureaus within the DOI, each with a myriad of expertise and/or responsibility for managing DOI trust resources. The DOI Regional Environmental Officer provides a single point of contact for emergency planning and preparedness, emergency response/removal actions, natural resource damage assessment, and restoration activities.

TNRCC: The TNRCC has regional field offices located statewide with professional personnel trained in water, sediment, and biological sampling; data analysis; knowledge of water, sediment, and biological quality of local water bodies; expertise in Texas surface water quality standards and investigation of impacts to water quality; use of biological indices for aquatic environments; expertise in marine and freshwater ecology; and historical surface water quality data.

The TNRCC is a designated trustee for surface water resources, sediments, groundwater resources, and air resources within the state of Texas.

TPWD: The TPWD has offices and laboratories throughout Texas with personnel experienced in sampling and monitoring of biological communities, surface water quality and contaminants in organisms, water and sediments, knowledge of current biological conditions of coastal and inland water bodies; presence of threatened and endangered species, and wildlife rehabilitation.

The Department has law enforcement capabilities including enforcing fish and wildlife regulations and recreational and commercial use closures. Staff can provide information on local hydrology and access points.

The TPWD is a designated trustee for all fish, wildlife, and other biota of the state of Texas and the habitats upon which they depend.

GLO: The GLO has offices located throughout Texas with personnel trained in surveying, data analysis, knowledge of water, ecological processes, boats, and monitoring of natural resources. The GLO, in coordination with TNRCC and TPWD, has developed a coastal natural resource inventory, which is currently available for use.

The GLO has expertise in state and federal coastal rules and regulations, economics, and coastal ecology. The GLO can provide instantaneous tide data, and also has an archive of historical photographs. The GLO is title holder and manager of all submerged and some upland state-owned lands.

The GLO is a designated trustee for all land, fish, shellfish, fowl, wildlife, biota, vegetation, air, water, groundwater, and other similar resources owned, managed, held in trust, regulated, or otherwise controlled by the state of Texas.

Trustee Coordination

Coordination and cooperation among state and federal trustee agencies in carrying out NRDA responsibilities is essential due to overlapping trust natural resources and/or jurisdictions. Trustees work as a team in the development of unified approaches to the response, NRDA, and restoration process.

Trustee Organization under the Incident Command System

The involvement of trustee(s) in response decisions is required under the NCP and 31 TAC §20.20. Ultimately response decisions are the responsibility of the OSC. However, response and NRDA activities should be viewed as complementary rather than conflicting.

Trustee input can be instrumental in preventing natural resource injury or losses, thus lessening postcleanup liability for responsible parties. Exchange of information to and from the trustees during response will normally occur through the Planning Section of the Incident Command System (ICS).

When an Incident Command System (ICS) has been established, Natural Resource Trustee activities will be coordinated within the ICS to improve communication, avoid duplication of efforts and make the most efficient use of available personnel and equipment.

Trustees will consult directly with the OSC in the event trustee concerns are not being adequately addressed within the ICS.

To the extent possible, a representative of each participating trustee agency should be available at the physical location of the Planning Section of the ICS at all times during a spill.

For the purposes of Natural Resource Damage Assessment, as soon as possible the trustees will appoint a Lead Administrative trustee agency (LAT). The LAT's role in oil spill damage assessment is defined in Appendix E to the National Contingency Plan.

Natural Resource Injury Minimization Activities

The involvement of trustee(s) in response decisions is required under the NCP §300.135(j)(2) and 31 TAC §20.20. Ultimately response decisions are the responsibility of the OSC. However, response and NRDA activities should be viewed as complementary rather than conflicting. Trustee input can be instrumental in preventing natural resource injury or losses, thus lessening postcleanup liability for responsible parties.

Exchange of information should occur through the SSC in the role as OSC liaison unless otherwise requested by the OSC.

Identification and Prioritization of Resources at Risk

Trustees shall supplement the OSC's information on sensitive or valuable resources. The trustees will provide local expertise and up-to-date information on these natural resources. The trustees shall also aid the OSC in prioritizing of sensitive habitat and resources requiring protection.

Evaluate Protective Measures and Cleanup Strategies

According to the NCP and 31 TAC §20.20, the OSC is required to consult with trustees on proposed response actions.

Trustees are required to provide timely advice (within the same operational period, if practicable) on proposed actions related to potentially affected trust resources.

Trustees shall advise appropriate response personnel in discussions on determination of emergency phase cleanup end points, i.e., how clean is clean.

Shoreline Cleanup Assessment Team (SCAT)

Trustees shall provide members for the SCAT, as appropriate. Observations relevant to natural resource injury determination made by SCAT members will be referred to trustee representatives with NRDA responsibility.

Postcleanup Inspection (Sign-off Team)

Trustees will participate on inspection teams at completion of cleanup activities, and will advise the OSC on any additional cleanup work deemed necessary.

Emergency Restoration

(43 CFR 11.21(b) and 61 FR(4):446) If response actions undertaken by the lead response agency or RP are insufficient to prevent additional injury to natural resources, the trustees may undertake emergency restoration actions to reduce the threat of additional injury. Prior to undertaking any emergency restoration actions, the trustees will first ask the OSC to undertake the needed actions.

Emergency restoration activities initiated by the trustees will not interfere with the ongoing response.

Wildlife Rehabilitation

Trustee representatives will participate through the ICS regarding rescue and rehabilitation of injured wildlife. Trustee representatives will ensure that proper rehabilitation organizations are contacted and that proper permits have been obtained and will provide advice on proper handling and rehabilitation techniques. Trustees will also maintain chain of custody for wildlife unable to be rehabilitated.

Natural Resource Injury Determination Activities

Exposure Documentation

Injury documentation requires gathering information on spilled/released product pathways, documenting exposure to specific resources along those pathways, and quantification of injuries caused by the product. Direct or indirect exposure to the product may injure/disrupt natural resources and/or services provided by those resources.

Natural resource injury includes the lost use of services provided by the natural resources (recreational and commercial uses, passive uses—43 CFR Part 11; 15 CFR Part 990; 31 TAC §20.32 (c)).

Within the first 24-48 hrs. (or to the extent practical), trustees will focus their efforts on gathering and preserving perishable data. Baseline water column data will be collected as soon as possible. A source sample of the product with appropriate chain of custody will be collected and archived for future characterizations.

To the extent practical, there will be coordination between trustee agencies, the OSC, and the RP in the collection of physical, chemical and biological data, sample and laboratory protocols, and work plans necessary for initiating injury determination activities. Trustees will coordinate appropriate injury determination activities with the OSC to ensure that these activities will not interfere with response activities.

Trustee and/or PRP Coordination

Trustees will identify a LAT within 48 hours to serve as a single point of contact for the RP. Trustees will function as a coordinated team as prescribed in existing state trustee, federal-state trustee and/or case-specific Memoranda of Agreement.

Responsible parties shall be invited to participate in the assessment process. Cooperation between trustees and RPs can greatly minimize costs by eliminating parallel assessments. Due to statutory responsibilities, trustees must maintain decision-making authority during any cooperative efforts. A binding written agreement for preassessment activities will be jointly developed when trustees and responsible parties are working on a cooperative assessment.

Written stipulations of fact regarding the specific spill may be developed to document agreements reached during the assessment process and to ensure all parties that a cooperative assessment is staying on track.

Use of Chemical Agents, Biological Agents, and Other Additives

Federal Preapproval

40 CFR §300.905 NCP Product Schedule.

(a) Oil Discharges.

(1) EPA shall maintain a schedule of dispersants and other chemical or bioremediation products that may be authorized for use on oil discharges in accordance with the procedures set forth in 40 CFR §300.910.

This schedule, called the NCP Product Schedule, may be obtained from the Emergency Response Division (5202-G), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The telephone number is 1-202-260-2342.

(2) Products may be added to the NCP Product Schedule by the process specified in 40 CFR §300.920.

(b) Hazardous Substance Releases. [Reserved]

40 CFR §300.910 Authorization of use.

(a) RRTs and Area Committees shall address, as part of their planning activities, the desirability of using appropriate dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents listed on the NCP Product Schedule, and the desirability of using appropriate burning agents.

RCPs and ACPs shall, as appropriate, include applicable preauthorization plans and address the specific contexts in which such products should and should not be used.

In meeting the provisions of this paragraph, preauthorization plans may address factors such as the potential sources and types of oil that might be spilled, the existence and location of environmentally sensitive resources that might be impacted by spilled oil, available product and storage locations, available equipment and adequately trained operators, and the available means to monitor product application and effectiveness.

The RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees shall review and either approve, disapprove, or approve with modification the preauthorization plans developed by Area Committees, as appropriate.

Approved preauthorization plans shall be included in the appropriate RCPs and ACPs.

If the RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees approve in advance the use of certain products under specified circumstances as described in the preauthorization plan, the OSC may authorize the use of the products without obtaining the specific concurrences described in paragraphs (b) and (c) of this section.

(b) For spill situations that are not addressed by the preauthorization plans developed pursuant to paragraph (a) of this section, the OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents on the oil discharge, provided that the products are listed on the NCP Product Schedule.

(c) The OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of burning agents on a case-by-case basis.

(d) The OSC may authorize the use of any dispersant, surface washing agent, surface collecting agent, other chemical agent, burning agent, bioremediation agent, or miscellaneous oil spill control agent, including products not listed on the NCP Product Schedule, without obtaining the concurrence of the EPA representative to the RRT and, as appropriate, the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, when, in the judgment of the OSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life.

Whenever the OSC authorizes the use of a product pursuant to this paragraph, the OSC is to inform the EPA RRT representative and, as appropriate, the RRT representatives from the affected states and, when practicable, the DOC/DOI natural resources trustees of the use of a product, including products not on the Schedule, as soon as possible.

Once the threat to human life has subsided, the continued use of a product shall be in accordance with paragraphs (a), (b), and (c) of this section.

(e) Sinking agents shall not be authorized for application to oil discharges.

(f) When developing preauthorization plans, RRTs may require the performance of supplementary toxicity and effectiveness testing of products, in addition to the test methods specified in 40 CFR §300.915 and described in Appendix C to part 300, due to existing site-specific or area-specific concerns.

State of Texas Preapproval

In all cases, the use of chemical agents, dispersants, bioremediation technology, or other additives utilized in combating spills in water in this state must be approved in advance on a case-by-case basis by the predesignated federal on-scene-coordinator (OSC) in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan, hereinafter referred to as the NCP (40 CFR Part 300).

The NCP, in conjunction with the federal Region 6 contingency plan indicates that for approval of any use, the OSC must first obtain the concurrence of the Texas Natural Resource Conservation Commission or the General Land Office except when, in the judgment of the OSC, the immediate use of the chemical agent or other additive is necessary to prevent or substantially reduce a hazard to human life.

When a product is used to prevent or reduce a hazard to human life, the OSC is to inform the TNRCC or the GLO as soon as possible and to obtain TNRCC or GLO concurrence for its continued use once the threat to human life has subsided (40 CFR §300.84).

The TNRCC, GLO, and RRC all recognize that the inherent value of surface collecting agents is in their prompt use in preventing the spread of spilled oil. The person responsible for the containment and cleanup of an oil spill may use a surface collecting agent without prior approval of the TNRCC. This in no way relieves the responsible person of legal responsibility for any adverse effects caused by the use of the surface collecting agent or the spilled oil.

However, the Regional Response Team (RRT) must approve the use of any chemical agent except where the OSC feels that human life is in danger. During the course of cleanup and restoration activities, staff of the state agency with lead jurisdiction shall consult with representatives of the other state agencies regarding the application for use of dispersants, chemical agents, bioremediation technology, or other additives.

Through the activities of the RRT, the various state agencies with primary jurisdiction have participated in preapproval planning. Presently, there is an existing preapproval for the offshore Gulf of Mexico area in federal Region 6 related to dispersant use and in situ burning. Details of the preapprovals are known to the U.S. Coast Guard on-scene coordinators to whom the RRT has issued the preapprovals.

Submission of Written Reports to the TNRCC

Written Information Submitted to the TNRCC under 30 TAC §§327.1-327.5

As outlined in 30 TAC 327.5(c), the person responsible for a spill or discharge shall submit written information, such as a letter, describing the details of the discharge or spill and supporting the adequacy of the response action, to the appropriate TNRCC regional manager within 30 working days of the discovery of the reportable discharge or spill.

The regional manager has the discretion to extend the deadline. The documentation shall contain one of the following items:

(1) A statement that the discharge or spill response action has been completed and a description of how the response action was conducted. The statement shall include the initial report information required by 30 TAC §327.3(c).

The executive director may request additional information. Appropriate response actions at any time following the discharge or spill include use of the Risk Reduction Rules in 30 TAC §335.8 or other appropriate agency risk-based corrective action programs.

(2) A request for an extension of time to complete the response action, along with the reasons for the request. The request shall also include a projected work schedule outlining the time required to complete the response action.

The executive director may grant an extension of up to six months from the date the spill or discharge was reported. Unless otherwise notified by the appropriate TNRCC regional manager or the TNRCC Emergency Response Unit, the responsible person shall proceed according to the terms of the projected work schedule.

(3) A statement that the discharge or spill response action neither has been completed nor is expected to be completed within the maximum allowable six-month extension. The statement shall explain why completion of the response action is not feasible and shall include a projected work schedule outlining the remaining tasks to complete the response action.

This information will also serve as notification that the response actions to the discharge or spill will be conducted under the Risk Reduction Rules in 30 TAC §335.8 or other TNRCC riskbased corrective action rules, and shall indicate the appropriate risk-based corrective action program.

This following outline is offered as guidance for spill response report preparation and includes information that a responsible party or cleanup contractor may routinely choose to retain for historical documentation of the discharge or spill event. As described in §26.042 of the Texas Water Code, if the executive director requires more information about a spill, he may request some or all of the following information.

Background Information

1. The time and date of occurrence and time and date of discovery.

2. The type of material discharged or spilled. A Material Safety Data Sheet (MSDS) or other chemical information for each material released may be included.

3. The amount of material discharged or spilled:

    a. To a surface water body. (e.g., a stormwater ditch, bayou, creek, river, or bay).

    b. To the land. Include a description of the surface material that has been affected (e.g., concrete, soil, limestone, etc.) and a description of the land area (e.g., coastal, fixed inland site, wetlands, etc.).

    c. To the air. Describe the duration and intensity of the emission, any information about the nature of the emission including a visible emissions evaluation, and any actions taken to mitigate the effects of the discharge or spill. Include a scale map, indicating the lateral extent of the material discharged or spilled as well as all bodies of water affected.

4. Location of the site affected by the discharge or spill.

    a. The name of the facility, if different from the responsible person.

    b. The facility's Texas solid waste generator number and EPA registration number, if applicable.

    c. The address. Both the physical address for the location of the discharge or spill and the mailing address for the responsible person, if different.

    d. The name and phone number for a contact person at the site.

    e. If the location of the discharge or spill is not owned by the responsible person, then a list of the names, addresses, and phone numbers of the property owners might be provided.

5. The time and date that the TNRCC was notified, including:

    a. The name of the representative of the responsible person who reported the incident to the commission.

    b. The name of the commission representative who received the report from the responsible person.

    c. If the commission conducted a site visit, the name of the TNRCC inspector and the date of the site visit.

6. Other agencies notified, including the time and date of the notification and the contact person.

Response Chronology

A time and date chronology of the response actions taken by the responsible person.

The chronology should describe the nature of the response actions (the name, address, and phone number of the response contractor as well as the name of a contact person, if different than the responsible person; the date and time of the first containment actions and the name of the individuals or company conducting these activities; a detailed description of the containment equipment and personnel used; a description of the effectiveness of the initial response actions; etc.)

Meteorology

Describe weather conditions during the incident and include a discussion of how the weather conditions may have helped or hindered the cleanup activities.

Reported Injuries

Describe any reported injuries or fatalities.

Remediation of Contamination

Describe actions taken to remove or neutralize the substances discharged or spilled including:

1. The amount of substances recovered and contained.

2. The amount of substances lost to the environment.

3. If soil was affected, the amount of substances removed. A scaled map indicating the lateral and vertical extent of the excavation activities might also be included.

4. The disposition of the excavated substances, the recovered substances and any additional wastes generated from the cleanup activities, including any on-site and off-site storage, processing, or treatment. If the material is stored at an off-site location, the responsible person must include the name, physical address, and phone number for the storage facility.

Sampling and Analysis

A description of all sampling activities including:

- A list of the persons collecting the samples.
- A scaled map indicating the lateral and vertical location of the sampling locations.
- A tabulation of the analyses performed and the analytical methods used.
- The name and address of the laboratory conducting the analytical work.
- The name and address of the supplier of the sample containers.
- A copy of the analytical results as reported by the laboratory to the responsible person.

Waste Classification and Disposal

Provide a description of the EPA and TNRCC waste classification and waste code numbers including:

- Copies of any analytical results used to obtain the waste classifications as well as any correspondence received from the TNRCC.
- A listing of any temporary generator or transporter numbers used, if applicable.
- Copies of the manifests used for the shipment of the wastes.
- The name, address, and phone number of the facility receiving the waste.

Reports Submitted by Contractors Employed on State-Funded Cleanups

Site Description

A. Site Name (include all past and present)

B. EPA and/or State Identification Number

C. Address and Location Description

D. Brief History or Description of Operational Activities at the Site

Current Site Conditions

A. Type of facilities on site (tanks, drums, landfill, etc.)

B. Amount of Wastes on site and location (include map)

C. Affected Media

1. Surface Water
2. Groundwater
3. Soils (to include information or recommendations for soil removal)
4. Air

Chronology of Events

Date each phase of work starts and finishes (this should include a brief description of each phase).

Scope of Work

A. Site Security Measures

1. Fence Installation (specifications) and Costs

2. Other Security Measures and Costs

B. Sampling and Classification of Wastes

1. Description of type and number of samples. (Include map of sample locations).

2. Laboratory Analysis/Chain of Custody Records

3. Waste Classification Requests

C. Disposal Method Selection

1. Description of disposal or treatment methods

2. Manifests and/or Receipts

3. Costs

Conclusions

A. Recommendations for additional security measures

B. Recommendations for waste minimization

C. Summary

The final report should include any photographs, copies of correspondence, laboratory reports, manifests, and any other disposal documentation.

Reimbursement of Local Governments for Emergency Response to Spills of Hazardous Substances

40 CFR §310.20. Eligibility for reimbursement.

(a) Any general purpose unit of local government may request reimbursement for temporary emergency measures if all requirements under §310.30 are met.

(b) States are not eligible for reimbursement for temporary emergency measures and no state may request reimbursement on its own behalf or on the behalf of political subdivisions within the state.

40 CFR §310.30. Requirements for requesting reimbursement.

(a) Response must have been initiated on or after October 21, 1987, the effective date of the interim final rule which governed the reimbursement process prior to the effective date of this part.

(b) The local government must inform EPA or the National Response Center (NRC) of the response as soon as possible, but not later than 24 hours after the start of a response, unless EPA or the USCG has been contacted via the NRC or other established response communication channel. EPA Regional offices and NRC telephone numbers are listed in Appendix I of this part.

(c) Requests for reimbursement must demonstrate that response actions are consistent with CERCLA, the NCP and, where applicable, the local comprehensive emergency response plan completed under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA).

(d) Requests for reimbursement must provide assurance that reimbursement for costs incurred for temporary emergency measures does not supplant local funds normally provided for response.

(e) Applicants for reimbursement must first present requests for payment of incurred costs to all known potentially responsible parties (PRPs) and permit at least 60 days for payment or for expression of intent to pay or willingness to negotiate prior to submitting a reimbursement request to the Agency.

Local governments also must pursue all other sources of reimbursement (e.g., insurance, reimbursement from the State) before seeking reimbursement from EPA under this part.

(f) After October 17, 1988, the applicant's jurisdiction must be included in the comprehensive emergency response plan completed by the Local Emergency Planning Committee (LEPC) as required by section 303(a) of EPCRA.

This requirement does not apply if the State Emergency Response Commission (SERC) has not established an LEPC responsible for the emergency planning district(s) encompassing the applicant's geographic boundaries. (Approved by the Office of Management and Budget under control number 2050-0077)

40 CFR §310.40. Allowable and unallowable costs.

To be allowable, costs for which reimbursement is sought must be consistent with CERCLA and with Federal cost principles outlined in the OMB Circular A-87, Cost Principles for State and Local Governments. The local government may also seek assistance from the EPA Regional Office in determining which costs may be allowable. Final determination of the reasonableness of the costs for which reimbursement is sought will be made by EPA.

(a) Allowable cost.

In general, allowable costs are those project costs are eligible, reasonable, necessary and allocable to the project. Costs allowable for reimbursement may include, but are not limited to:

(1) "Disposable materials and supplies" acquired, consumed, and expended specifically for the purpose of the response for which reimbursement is being requested (hereafter referred to as "the response");

(2) Compensation for unbudgeted wages of employees for the time and efforts devoted specifically to the response that are not otherwise provided for in the applicant's operating budget (e.g., overtime pay for permanent full-time and other than full-time employees);

(3) Rental or leasing of equipment used specifically for the response (e.g., protective equipment or clothing, scientific and technical equipment) (Note: reimbursement for these costs will not exceed the duration of the response);

(4) Replacement costs for equipment owned by the applicant that is contaminated beyond reuse or repair, if the applicant can demonstrate that the equipment was a total loss and that the loss occurred during the response (e.g., self-contained breathing apparatus irretrievably contaminated during the response);

(5) Decontamination of equipment contaminated during the response;

(6) Special technical services specifically required for the response (e.g., costs associated with the time and efforts of technical experts/specialists not otherwise provided for by the local government);

(7) Other special services specifically required for the response (e.g., utilities);

(8) Laboratory costs for purposes of analyzing samples taken during the response;

(9) Evacuation costs associated with the services, supplies, and equipment procured for a specific evacuation; and

(10) Containerization or packaging cost including transportation and disposal of hazardous wastes.

(b) Unallowable costs.

Unallowable costs for reimbursement include, but are not limited to:

(1) Purchase or routine maintenance of equipment of a durable nature that is expected to have a period of service of one year or more after being put into use without material impairment of its physical condition, except as provided in paragraphs (a)(4) and (a)(5) of this section;

(2) Materials and supplies not purchased specifically for the response;

(3) Employee fringe benefits;

(4) Administrative costs for filing reimbursement applications;

(5) Employee out-of-pocket expenses normally provided for in the applicant's operating budget (e.g., meals, fuel);

(6) Legal expenses that may be incurred as a result of response activities, including efforts to recover costs for potentially responsible parties; and

(7) Medical expenses incurred as a result of response activities.

(c) Detailed cost documentation.

Detailed cost documentation must be provided by the local government and ensure that costs incurred are substantiated and that cost documentation is adequate for an Agency audit. Documentation of response costs must include at a minimum.

(1) Specification of the temporary emergency measures for which reimbursement is requested;

(2) Specification of the local agency incurring the cost;

(3) Detailed breakdown of actual costs, by cost element such as overtime, equipment rental;

(4) Supporting documents such as invoices, sales receipts, rental or leasing agreements; and

(5) Generally accepted accounting practices consistently applied. (Approved by the Office of Management and Budget under control number 2050-077)

40 CFR §310.50. Filing procedures.

(a) Only one request for reimbursement will be accepted for each hazardous substance emergency requiring immediate response at the local level. When more than one local agency or government has participated in such a response, those agencies and governments must determine which single entity will submit the request on behalf of them all.

(b) A request for reimbursement must be submitted on EPA Form 9310-1, illustrated in Appendix II of this part, and must demonstrate that:

(1) Costs for which reimbursement is sought were incurred for temporary emergency measures taken by the local government to protect human health and the environment from releases or threatened releases of hazardous substances, pollutants or contaminants; temporary emergency measures may include security, source control, release containment, neutralization or other treatment methods, contaminated runoff control and similar activities mitigating immediate threats to human health and the environment;

(2) Reasonable effort has been made to recover costs from the responsible party and from any other available source and that such effort has been unsuccessful; and

(3) Response actions were not inconsistent with CERCLA, the NCP and, if applicable, the local emergency response plan required under Title III of SARA.

(c) Applicants must certify that:

(1) All costs are accurate and were incurred specifically for the response for which reimbursement is being requested:

(2) The local government complied with the requirement to inform EPA or the USCG of the response, as specified in §310.30(b);

(3) Reimbursement for costs incurred for response activities does not supplant local funds normally provided for response;

(4) The Potentially Responsible Party (PRP) cannot be identified or is unwilling or unable to pay; and

(5) If costs subsequently are recovered from responsible parties or other sources after the local government has received reimbursement from the Superfund, the local government agrees to return to EPA the reimbursement monies for which costs have been recovered.

(d) Reimbursement requests must be received by EPA within one year of the date of completion of the response for which reimbursement is being requested. Late applications must include an explanation of the delay and will be considered on a case-by-case basis.

(e) A request for reimbursement must be signed by the authorized representative who is the highest ranking official of the local government or his or her delegate.

(f) Completed application and supporting data should be mailed to the LGR Project Officer, Emergency Response Division (5202-G), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. (Approved by the Office of Management and Budget under control number 2050-0077)

40 CFR §310.60. Verification and reimbursement.

(a) Upon receipt of a reimbursement request, EPA will verify that it complies with all requirements. Where the request is incomplete or has significant defects, EPA will return the request to the applicant with written notification of its deficiencies.

(b) A request returned to the applicant for correction of deficiencies must be resubmitted to EPA within 60 days.

(c) For purposes of this part, a reimbursement request is deemed complete when EPA determines that the request complies fully with all requirements for reimbursement and with all filing procedures. When the request is complete, a notice will be provided to the applicant of EPA's receipt and acceptance for evaluation.

(d) If EPA determines that it cannot complete its evaluation of a request because the records, documents and other evidence were not maintained in accordance with generally accepted accounting principles and practices consistently applied, or were for any reason inadequate to demonstrate the reasonableness of the costs claimed, EPA may reject the request or make adjustments, if possible.

Further consideration of such amounts will depend on the adequacy of subsequent documentation. Any additional information requested by EPA must be submitted within 60 days unless specifically extended by EPA. The failure of the applicant to provide in a timely manner the requested information without reasonable cause may be cause for denial of the reimbursement request.

(e) When the reimbursement request is completed, EPA will rank the request on the basis of financial burden. Financial burden will be based on the ratio of eligible response costs to the applicant locality's annual per capita income adjusted for population, with larger fractions representing greater burden than smaller fractions.

Per capita income and population statistics used to calculate financial burden shall be those published by the U.S. Department of Commerce, Bureau of the Census, in Current Population Reports, Local Population Estimates, Series P-26, "1988 Population and 1987 Per Capita Income Estimates for Counties and Incorporated Places," Vols. 88-S-SC, 88-ENC-SC, 88-NE-SC, 88-W-SC, 88-WNC-SC, March 1990. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 USC 552(a) and 1 CFR Part 51. Copies are available from the Bureau of the Census, Office of Public Affairs, Department of Commerce, Constitution Avenue, NE, Washington, DC 20230 (1-202-763-4040).

Copies may be inspected at the U.S. Environmental Protection Agency 401 M Street, SW, Washington, DC, or at the Office of the Federal Register, 800 N. Capitol Street NW., 7th Floor, suite 700, Washington, DC. In ranking requests on the basis of financial burden, EPA also will give consideration to other relevant financial information supplied by the applicant. Once the request is ranked, EPA will:

(1) Reimburse the request or;

(2) Decline to reimburse the request; or

(3) Hold the request for reconsideration if funding for the current review period has been exceeded.

(f) Reimbursement will be made:

(1) Only for costs that are allowable, reasonable and necessary; and

(2) Only to the extent that the temporary emergency measures conformed to response criteria established by CERCLA, the NCP and the local emergency response plan, if applicable.

(g) The EPA reimbursement official will provide the requester with a written final decision. Payment of approved requests will be made according to §310.80.

(h) Requests that are not reimbursed after initial consideration remain open for reconsideration, at the EPA reimbursement official's discretion, for one year. EPA will notify the requester in writing if the request is held for later review. After that time, an unreimbursed request will no longer be considered and EPA will notify the requester in writing that the request has been denied.

40 CFR §310.70. Records retention.

An applicant receiving a reimbursement from the Superfund is required to maintain all cost documentation and any other records relating to the reimbursement request and to provide EPA with access to such records. If, after ten years from the date of the reimbursement from the Superfund, EPA has not initiated a cost recovery action, the applicant need retain the records no longer. The applicant must provide EPA with a 60 day notice on its intent to destroy the records. This notification will allow EPA the opportunity to take possession of these records before they are destroyed.

40 CFR §310.80. Payment of approved reimbursement requests.

A reimbursement from the Superfund can be paid only when Superfund monies are available. An approved request in excess of Superfund appropriations available to EPA may be paid only when additional money is appropriated. As appropriations in the Superfund become available, reimbursements will be made in the order in which approved requests are ranked, according to relative financial burden.

Texas Water Code Section 26.177:
Water Pollution Control Duties of Cities

Sec. 26.177. Water Pollution Control Duties of Cities

(a) Every city in this state having a population of 5,000 or more inhabitants shall, and any city of this state may, establish a water pollution control and abatement program for the city.

The city shall employ or retain an adequate number of personnel on either a part-time or full-time basis as the needs and circumstances of the city may require, who by virtue of their training or experience are qualified to perform the water pollution control and abatement functions required to enable the city to carry out its duties and responsibilities under this section.

(b) The water pollution control and abatement program of a city shall encompass the entire city and may include areas within its extraterritorial jurisdiction which in the judgment of the city should be included to enable the city to achieve the objectives of the city for the area within its territorial jurisdiction. The city shall include in the program the services and functions which, in the judgment of the city or as may be reasonably required by the commission, will provide effective water pollution control and abatement for the city, including the following services and functions:

(1) the development and maintenance of an inventory of all significant waste discharges into or adjacent to the water within the city and, where the city so elects, within the extraterritorial jurisdiction of the city, without regard to whether or not the discharges are authorized by the commission;

(2) the regular monitoring of all significant waste discharges included in the inventory prepared pursuant to Subdivision (1) of this subsection;

(3) the collecting of samples and the conducting of periodic inspections and tests of the waste discharges being monitored to determine whether the discharges are being conducted in compliance with this chapter and any applicable permits, orders, or rules of the commission, and whether they should be covered by a permit from the commission;

(4) in cooperation with the commission, a procedure for obtaining compliance by the waste dischargers being monitored, including where necessary the use of legal enforcement proceedings;

(5) the development and execution of reasonable and realistic plans for controlling and abating pollution or potential pollution resulting from generalized discharges of waste which are not traceable to a specific source, such as storm sewer discharges and urban runoff from rainwater; and

(6) any additional services, functions, or other requirements as may be prescribed by commission rule.

(c) The water pollution control and abatement program required by Subsections (a) and (b) of this section must be submitted to the commission for review and approval. The commission may adopt rules providing the criteria for the establishment of those programs and the review and approval of those programs.

(d) Any person affected by any ruling, order, decision, ordinance, program, resolution, or other act of a city relating to water pollution control and abatement outside the corporate limits of such city adopted pursuant to this section or any other statutory authorization may appeal such action to the commission or district court.

An appeal must be filed with the commission within 60 days of the enactment of the ruling, order, decision, ordinance, program, resolution, or act of the city. The issue on appeal is whether the action or program is invalid, arbitrary, unreasonable, inefficient, or ineffective in its attempt to control water quality. The commission or district court may overturn or modify the action of the city. If an appeal is taken from a commission ruling, the commission ruling shall be in effect for all purposes until final disposition is made by a court of competent jurisdiction so as not to delay any permit approvals.

(e) The commission shall adopt and assess reasonable and necessary fees adequate to recover the costs of the commission in administering this section.

Oil Transported and Produced in the Gulf of Mexico

This information is available in Subpart H of the Federal Region VI Regional Contingency Plan. Copies may be obtained by contacting EPA Region VI, Dallas; U.S. Coast Guard, 8th District, New Orleans; or the state RRT representatives—the GLO or the TNRCC.

Dispersants and Other Agents on the EPA List of Accepted Products

This information is available in Subpart H of the Federal Region VI Regional Contingency Plan. Copies may be obtained by contacting EPA Region VI, Dallas; U.S. Coast Guard, 8th District, New Orleans; or the State RRT representatives—the TNRCC or the GLO.

Calculations, Conversions, and Formulas

Calculations

Area of a circle: B r2 where r = radius of circle
Circumference of circle: 2B r where r = radius of circle

Volume of cylinder or tank: B r2h where r = radius of cylinder and h = height

Common Conversions

1 acre = 43,560 square feet
1 acre-foot = 43,560 ft3
1 centimeter = 0.3937 inch
1 cubic centimeter = 0.0610 cubic inch
1 cubic foot of liquid = 7.48 gallons
1 cubic foot of soil = 100 pounds (an assumption used by ERU for waste disposal)
1 cubic foot of water = 62.4 pounds
1 cubic foot per second = 646,300 gallons per 24 hours
1 cubic foor per second = 449 gallons per minute
1 cubic inch = 16.387 cubic centimeters
1 gallon = 231 cubic inches
1 gallon of water = 8.34 pounds
1 gallon = 3.785 liters
1 grain per gallon = 17.12 parts per million
1 horsepower = 33,000 foot-pounds per minute
1 horsepower = 2547 BTU per hour
1 horsepower = 746 watts
1 kilowatt hour = 1.34 horsepower
1 liter = 0.2642 gallon
1 liter = 1.057 quarts
1 liter = 61.02 cubic inches
1 milligram per liter = 1 part per million
1 million gallons per 24 hours = 1.547 cubic feet per second
1 million gallons per 24 hours = 694 gallons per minute
1 part per million = 0.0584 grain per gallon
1 part per million = 8.34 pounds per million gallons
1 percent = 10,000 parts per million
1 pound per 1,000 gallons = 120 parts per million
1 pound per million gallons = 0.1198 part per million
1 quart = 0.946 liter
barrel (oil) = 42 U.S. gallons
barrel (chemical) = 55 U.S. gallons
barrel (beer) = 31 U.S. gallons
centimeter = 0.3937 inch or 0.0328 foot
cubic foot = 0.02832 cubic meter
cubic meter = 35.31 cubic feet
gram (“g”) = 0.0353 ounce
gram (“g”) = 15.432 grains
horsepower = 0.746 kilowatt
inch = 2.54 centimeters
kilogram (“kilo”) = 2.205 pounds 27.27 ounces
kilometer = 0.621 mile
kilowatt = 1.341 horsepower
knot = 1.151 miles per hour
meter = 3.28 feet or 39.37 inches
mile = 1.609 kilometers
ounce (“oz”) = 0.02835 kilogram

ounce (“oz”) = 28.3495 grams
pound (“lb”) = 0.454 kilogram
pound (“lb”) = 453.6 grams
pound (“lb”) = 7,000 grains
square meter = 1.196 square yards
square yard = 0.8361 square meter

Formulas—Area

acres × 0.004047 = square kilometers
acres × 0.4047 = hectares
hectare × 2.471 = acres
square centimeters × 0.155 = square inches
square centimeters ÷ 6.451 = square inches
square kilometers × 0.386 = square miles
square kilometers × 247.1 = acres
square meters × 10.764 = square feet
square miles × 2.59 = square kilometers
square millimeters × 0.00155 = square inches
square millimeters ÷ 645.1 = square inches

Formulas—Distance

centimeters × 0.3937 = inches
centimeters ÷ 2.54 = inches
kilometers × 0.6214 = statute miles
kilometers × 0.5396 = statute miles
kilometers ÷ 1.6093 = miles
kilometers × 3280.8693 = feet
meters × 3.281 = feet
meters × 39.37 = inches
meters × 1.094 = yards
millimeters × 0.03937 = inches
millimeters ÷ 25.4 = inches
nautical miles × 1.1516 = statute miles
nautical miles × 6,076 = feet
nautical miles × 1.852 = kilometers
rods × 16.5 = feet
yards × 0.9144 = meters

Formulas—Flow Rate

cubic feet per minute × 472 = cubic centimeters per second
cubic feet per minute × 0.1247 = gallons per second
cubic feet per minute × 0.4720 = liters per second
cubic feet per minute × 62.4 = pounds of water per minute
cubic yards per minute × 0.45 = cubic feet per second
cubic yards per minute × 3.367 = gallons per second
cubic yards per minute × 12.74 = liters per second
gallons per minute × .002228 = cubic feet per second
gallons per minte × 0.06308 = liters per second

Formulas—Pressure

atmospheres × 76 = centimeters of mercury
atmospheres × 29.92 = inches of mercury
atmospheres × 33.90 = feet of water
atmospheres × 10.333 = kilograms per square meter
atmospheres × 14.70 = pounds per square inch
atmospheres × 1.058 = tons per square foot
cms of mercury × 0.01316 = atmospheres
cms of mercury × 0.4461 = feet of water
cms of mercury × 135 = kilograms per square meter
cms of mercury × 27.85 = pounds per square foot
cms of mercury × 0.1934 = pounds per square inch

Formulas—Speed/Velocity

cms per second × 1.969 = feet per minute
cms per second × 0.03281 = feet per second
cms per second × 0.036 = kilometers per hour
cms per second × 0.02837 = miles per hour
knots × 1.853 = kilometers per hour
knots × 1.51 = statute miles/hour
miles (statute)/hour × 0.8684 = knots
miles per hour × 44.70 = centimeters per second
miles per hours × 98 = feet per minute
miles per hour × 1.467 = feet per second
miles per hour × 1.6093 = kilometers per hour
miles per hour × 0.8684 = knots
miles per hour × 26.82 = meters per minute

Formulas—Temperature

(EF ! 32) × 5/9 = EC
(EC × 1.8) + 32 = EF

Formulas—Volume

barrels (oil) × 42 = U.S. gallons
barrels (chemical) × 55 = U.S. gallons
barrels (beer) × 31 = U.S. gallons
barrels (oil) × 35 = imperial gallons
bushels × 1.244 = cubic feet
bushels × 2150 = cubic inches
bushels × 0.03524 = cubic meters
bushels × 4 = pecks
bushels × 64 = pints (dry)
bushels × 32 = quarts (dry)
cubic centimeters ÷ 16.383 = cubic inches
cubic centimeters ÷ 3.69 = fluid drams
cubic centimeters ÷ 29.57 = fluid ounces
cubic feet × 7.481 = U.S. gallons

cubic feet × 1728 = cubic inches
cubic feet × 62.43 = pounds of water
cubic feet × 0.03704 = cubic yards
cubic feet × 28.32 = liters
cubic feet × 59.84 = pints (liquid)
cubic feet × 29.92 = quarts (liquid)
cubic inches × 16.39 = cubic centimeters
cubic meters × 264.2 = U.S. gallons (231 cubic inches)
cubic meters × 35.315 = cubic feet
cubic meters × 1.308 = cubic yards
gallons × 8.345 = pounds of water
gallons × 3785 = cubic centimeters
gallons × 0.1337 = cubic feet
gallons × 231 = cubic inches
gallons × 3.785 = liters
gallons × 8 = pints (liquid)
gallons × 4 = quarts (liquid)
liters × 61.022 = cubic inches
liters × 33.84 = fluid ounces
liters × 0.2642 = gallons
liters ÷ 3.78 = gallons
metric tons × 294 = U.S. gallons
pints (dry) × 33.60 = cubic inches
pints (liquid) × 28.87 = cubic inches
U.S. gallons × 0.833 = imperial gallons
U.S. gallons × 3.785 = liters
U.S. gallons × 0.0238 = barrels (oil)
U.S. gallons × 0.0034 = metric tons

Glossary of Commonly Used Environmental Acronyms

A

AA . . . . . assistant administrator (Environmental Protection Agency)
ACFM . . . . . actual cubic feet per minute
ACGIH . . . . . American Conference of Governmental Industrial Hygienists
ACQUIRE . . . . . aquatic information retrieval
AEA . . . . . Atomic Energy Act
AEM . . . . . acoustic emission monitoring
AGO . . . . . Office of the Attorney General (Texas)
AIHA . . . . . American Industrial Hygiene Association
AIP . . . . . autoignition point
AL . . . . . acceptable level
ALP . . . . . aluminum phosphide
ALS . . . . . Advanced Life Support
A&M . . . . . Texas A&M University Engineering Extension Service
AMS . . . . . American Meteorological Society
AMS . . . . . ammonium sulfamate
ANSI . . . . . American National Standards Institute
ANTU . . . . . N-(1-naphthyl)-2-thiourea
APO . . . . . tris(aziridinyl)phosphine oxide

APV ..... Carbitol
ARAR ..... applicable or relevant and appropriate requirements
ARCS ..... alternative remedial contracting strategy
ATSDR ..... Agency for Toxic Substances and Disease Registry

B

BaP ..... benzo(a)pyrene
BAT ..... best available treatment
BARF ..... basic aircraft rescue and firefighting
BDAT ..... best demonstrated available technology
BEHP ..... 1,2-benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
BG ..... billion gallons
BHC ..... benzene hexachloride
BH MCPA ..... (4-chloro-2-methylphenoxy)acetic acid
BLM ..... Bureau of Land Management
BLOB ..... biologically liberated organo-beasties
BLS ..... basic life support
BM ..... Bureau of Mines
BOD ..... biochemical oxygen demand

BOD ..... biological oxygen demand
BSO ..... benzene-soluble organics

C

C ..... Celsius (degrees)
CAA ..... Clean Air Act
CAB ..... Civil Aeronautics Board
CAD ..... computer-assisted design
CAD ..... computer-aided dispatch
CAER ..... community awareness and emergency response
CAG ..... cancer assessment group
CAP ..... criteria air pollutant
CAS ..... Chemical Abstract Service
CAU ..... carbon adsorption unit
CBD ..... Commerce Business Daily
CDC ..... Centers for Disease Control
CDD ..... chlorinated dibenzo-p-dioxin
CDF ..... chlorinated dibenzofuran
CEPP ..... Chemical Emergency Preparedness Plan
CERCLA ..... Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS ..... CERCLA Information System
CERI ..... Center for Environmental Research Information
CEU ..... continuing education units
CFC ..... chlorofluorocarbons
CFM ..... chlorofluoromethanes
CFM ..... cubic feet per minute
CFR ..... Code of Federal Regulations

CFS ..... cubic feet per second
CHEMTREC ..... Chemical Transportation Emergency Center
CHRIS ..... Chemical Hazard Response Information System
CI ..... compression ignition
CM ..... corrective measure
CMA ..... Chemical Manufacturers Association
CMB ..... chemical mass balance
COD ..... chemical oxygen demand
COE ..... United States Army Corps of Engineers
CPF ..... carcinogenic potency factor
CRS ..... Congressional Research Services
CWA ..... Clean Water Act

D

DDD ..... 1,1-bis(4-chlorophenyl)-2,2-dichloroethane
DDE ..... 2,2-bis(p-chlorophenyl)-1,1-dichloroethylene
DDT ..... dichlorodiphenyltrichloroethane

DE ..... destruction efficiency
DEG ..... diethylene glycol
DEHP ..... 1,2-benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
DEM ..... Governor's Division of Emergency Management (Texas)
DES ..... diethylstilbesterol
DMDT ..... dimethoxy-DDT
DMU ..... 3-(3,4-dichlorophenyl)-1,1-dimethylurea or 1,3-dimethylolurea
DNA ..... deoxyribonucleic acid
DNTP ..... parathion
DO ..... dissolved oxygen
DOA ..... United States Department of Agriculture
DOC ..... United States Department of Commerce
DOD ..... United States Department of Defense
DOE ..... United States Department of Energy
DOI ..... United States Department of the Interior
DOJ ..... United States Department of Justice
DOL ..... United States Department of Labor
DOP ..... bis(2-ethylhexyl) phthalate
DOT ..... United States Department of Transportation
DPS ..... Texas Department of Public Safety
DRE ..... destruction removal and efficiency
DRMS ..... Defense Reutilization and Marketing Service
DTBP ..... tert-butyl peroxide
DTMC ..... 1,1-bis(p-chlorophenyl)-2,2,2-trichloroethanol
DWS ..... Drinking Water Standards

E

EC ..... effective concentration
EDB ..... ethylene dibromide

EDC ..... ethylene dichloride
EDTA ..... ethylenediaminetetraacetic acid
EENET ..... Emergency Education Network (FEMA)
EL ..... exposure level
EO ..... ethylene oxide
EOC ..... Emergency Operations Center (Texas)
EPA ..... United States Environmental Protection Agency
EPD ..... Emergency Planning District
EPN ..... ethoxy-4-nitrophenoxyphenylphosphine sulfide
EPTC ..... Extraction Procedure Toxicity Characteristics
ERCS ..... Emergency Response Cleanup Systems (EPA)
ERT ..... Environmental Response Team (EPA)
ERT ..... Emergency Response Team (Texas Natural Resource Conservation Commission)
ESA ..... Endangered Species Act
ESA ..... environmental site assessment

F

F ..... Fahrenheit (degrees)
FAA ..... Federal Aviation Administration
FAM ..... friable asbestos material
FCO ..... federal coordinating officer
FE ..... fugitive emissions
FEA ..... Federal Energy Administration
FEMA ..... Federal Emergency Management Agency
FID ..... flame ionization detector
FIFRA ..... Federal Insecticide, Fungicide, and Rodenticide Act
FIT ..... field investigation team
FLP ..... flash point
FML ..... flexible membrane liner
FOIA ..... Freedom of Information Act
FP ..... fine particulate
FPA ..... Federal Pesticide Act
FPD ..... flame photometric detector
FR ..... Federal Register
FS ..... feasibility study
FWPCA ..... Federal Water Pollution Control Act (Clean Water Act or CWA)
FWS ..... U.S. Fish and Wildlife Service

G

GAC ..... granular activated carbon
GACT ..... granular activated carbon treatment
GC ..... gas chromatograph
GC/MS ..... gas chromatograph/mass spectrometer
GIS ..... Geographic Information System
GLO ..... General Land Office (Texas)
GPAD ..... gallons per acre per day
GPG ..... grams per gallon
GPR ..... ground-penetrating radar
GW ..... groundwater

GWA ..... Groundwater Act of 1987
GWM ..... groundwater monitoring

H

HA ..... health assessment
HAZMAT ..... hazardous material
HC ..... hydrocarbon
HCCPD ..... hexachlorocyclopentadiene
HDPE ..... high-density polyethylene
HEM ..... human exposure modeling
HEX-BCH ..... hexachloronorbornadiene
HHDN ..... 4-amino-3-hydroxybiphenyl sulfate
HHE ..... human health and the environment
HHS ..... United States Department of Health and Human Services
HI ..... hazard index
HMTA ..... Hazardous Materials Transportation Act
HOC ..... halogenated organic compounds
HRS ..... Hazard Ranking System
HSWA ..... Hazardous and Solid Waste Amendments (to RCRA, 1984)
HTP ..... high temperature and pressure
HVIO ..... high-volume industrial organics

I

IAP ..... indoor air pollution
IARC ..... International Agency for Research on Cancer
ICS ..... Incident Command System
IDLH ..... immediately dangerous to life and health
IFB ..... invitation for bids
IP ..... inhalable particles
IR ..... infrared
IUPAC ..... International Union of Pure and Applied Chemists

J

JIC ..... Joint Information Center
JP ..... jet petroleum or jet fuel

L

LC ..... lethal concentration
LD50 ..... low dose where 50 percent of test population dies
LEL ..... lower explosive limit
LEPC ..... local emergency planning committee
LFL ..... lower flammability limit
LLRW ..... low-level radioactive waste
LNG ..... liquified natural gas
LOAEL ..... lowest observed adverse effect level
LOEL ..... lowest observed effect level

LPG . . . . . liquified petroleum gas
LUST . . . . . leaking underground storage tank

M

MATC . . . . . maximum allowable toxicant concentration
MBI . . . . . methylene bis(phenylisocyanate)
MCL . . . . . maximum contaminant level
MCLG . . . . . maximum contaminant level goal
MCP/MCPA . . . . . (4-chloro-2-methylphenoxy)acetic acid
MDA . . . . . methylenedianiline
MDI . . . . . diphenylmethane diisocyanate
MDL . . . . . method detection limit
MEA . . . . . monoethanolamine
MEK . . . . . methyl ethyl ketone
MGD . . . . . million gallons per day
MIBK . . . . . methyl isobutyl ketone
MIC . . . . . methyl isocyanate
MMH . . . . . methylhydrazine
MOA . . . . . memorandum of agreement
MOI . . . . . memorandum of intent
MOU . . . . . memorandum of understanding
MP . . . . . melting point
MPRSA . . . . . Marine Protection, Research, and Sanctuaries Act
MSDS . . . . . Material Safety Data Sheet
MSHA . . . . . Mine Safety and Health Administration
MSL . . . . . mean sea level
MSW . . . . . municipal solid waste
MTBE . . . . . methyl tert-butyl ether
MTD . . . . . maximum tolerated dose
MW . . . . . molecular weight

N

NAS . . . . . National Academy of Sciences
NBAR . . . . . nonbinding preliminary
NCA . . . . . Noise Control Act
NCI . . . . . National Cancer Institute
NCP . . . . . National Oil and Hazardous Substances Pollution Contingency Plan
NDS . . . . . National Dioxin Study
NFPA . . . . . National Fire Protection Association
NIMBY . . . . . "not in my backyard" syndrome
NIOSH . . . . . National Institute of Occupational Safety and Health
NMFS . . . . . National Marine Fisheries Service
NMHC . . . . . nonmethane hydrocarbons
NMOC . . . . . nonmethane organic compounds
NMP . . . . . N-methylpyrrolidinone
NMR . . . . . nuclear magnetic resonance
NOAA . . . . . National Oceanic and Atmospheric Administration
NOAEL . . . . . "no observed adverse effect" level
NOV . . . . . notice of violation

NPDES ..... National Pollutant Discharge Elimination System
NPL ..... National Priority List
NRC ..... Nuclear Regulatory Commission
NRC ..... National Response Center
NRDA ..... Natural Resource Damage Assessment
NRT ..... National Response Team
NSC ..... National Security Council
NSF ..... National Science Foundation
NTE ..... not to exceed
NTIS ..... National Technical Information System
NWS ..... National Weather Service

O

Ox ..... total oxidants
OCS ..... outer continental shelf
OCSLA ..... Outer Continental Shelf Lands Act
OERR ..... Office of Emergency and Remedial Response (EPA)
OHMTADS ..... Oil and Hazardous Materials Technical Assistance Data System
O&M ..... operation and maintenance
OPA ..... Oil Pollution Act of 1990
ORD ..... Office of Research and Development
ORM ..... other regulated material
ORP ..... oxidation-reduction potential
OSC ..... on-scene coordinator
OSHA ..... Occupational Safety and Health Administration
OSPRA ..... Oil Spill Prevention and Response Act of 1991
OSWER ..... Office of Solid Waste and Emergency Response (EPA)
OTA ..... Office of Technology Assessment (EPA)

P

PA ..... preliminary assessment
PAAT ..... Public Affairs Assist Team (EPA)
PAC ..... powdered activated carbon
PAH ..... polynuclear aromatic hydrocarbons
PBB ..... polybrominated biphenyls
PCB ..... polychlorinated biphenyls
PCDD ..... polychlorinated dibenzo-para-dioxin
PCDF ..... polychlorinated dibenzofurans
PCE ..... pollution control equipment
PCNB ..... pentachloronitrobenzene
PCP ..... pentachlorophenol
PDB/PDCB ..... p-dichlorobenzene
PEL ..... permissible exposure limit
PF ..... protection factor
PIAT ..... Public Information Assist Team (EPA)
PIC ..... product of incomplete combustion
PM ..... project manager
PNA ..... p-nitroaniline
PNA ..... polynuclear aromatic hydrocarbons

POE ..... point of exposure
POHC ..... principal organic hazardous constituent
POLREP ..... pollution report
POM ..... polycyclic organic matter
POTW ..... publicly owned treatment works
ppb ..... parts per billion
ppm ..... parts per million
ppt ..... parts per trillion
ppth ..... parts per thousand
PRP ..... potentially responsible parties
psi ..... pounds per square inch
PTFE ..... polytetrafluoroethylene (Teflon)
PVC ..... polyvinyl chloride

Q

QA/QC ..... quality assurance/quality control

R

RA ..... regional administrator (EPA)
RA ..... remedial action
RA ..... risk assessment
RAD ..... radiation absorbed dose
RBC ..... red blood cells
RBC ..... rotating biological contactor
RCRA ..... Resource Conservation and Recovery Act of 1976
RCRIS ..... RCRA Information System
RD ..... remedial design
RD&D ..... research, development, and demonstration
rDNA ..... recombinant DNA
REMFIT ..... Field Investigation Team for EPA Remedial Actions
RFD ..... reference dose values
RFP ..... request for proposals
RI/FS ..... remedial investigation/feasibility study
RNA ..... ribonucleic acid
RO ..... reverse osmosis
ROD ..... record of decision
RPM ..... regional project manager
RQ ..... reportable quantity
RRC ..... Railroad Commission of Texas
RRT ..... Regional Response Team
RTECS ..... Registry of Toxic Effects of Chemical Substances

S

SARA ..... Superfund Amendment and Reauthorization Act
SARA Title III ..... Emergency Planning and Community Right-to-Know Act
SCP ..... State of Texas Oil and Hazardous Substances Spill Contingency Plan
SCS ..... Soil Conservation Service
SDWA ..... Safe Drinking Water Act

SERC ..... State Emergency Response Commission (Texas)
SFM ..... state fire marshal (Texas)
SIC ..... standard industrial code
SIIS ..... Spill Incident Information System (TNRCC)
SITE ..... Superfund Innovative Technology Evaluation
SOSC ..... state on-scene coordinator
SPCC ..... spill prevention, containment, and countermeasures
SQG ..... small-quantity generator
SSA ..... sole-source aquifer
SSC ..... scientific support coordinator
STEL ..... short-term exposure limit
STORET ..... storage and retrieval of water-related data
SWDA ..... Solid Waste Disposal Act

T

TAC ..... Texas Administrative Code
TAT ..... Technical Assistance Team (EPA)
TBT ..... tributyltin
TC ..... toxic concentration
TCDD ..... 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin)
TCDF ..... tetrachlorodibenzofurans
TCE ..... trichloroethylene
TCLP ..... toxicity characteristics leaching procedure
TCP ..... trichloropropane
TD ..... toxic dose
TDA ..... Texas Department of Agriculture
TDE ..... triethylene glycol diglycidyl ether
TDH ..... Texas Department of Health
TDI ..... toluene diisocyanate
TDOT ..... Texas Department of Transportation
TDS ..... total dissolved solids
T&E ..... testing and evaluation facility
TEDP ..... tetraethyl dithiopyrophosphate
TEF ..... tris(1-aziridinyl)phosphine oxide
TEG ..... tetraethylene glycol
TEL ..... tetraethyllead
TEPA ..... tris(1-aziridinyl)phosphine oxide
TEPP ..... tetraethyl pyrophosphate
TERC ..... Texas Emergency Response Center (TNRCC/ERT)
THM ..... trihalomethane
TISE ..... "take it somewhere else" syndrome (see also NIMBY)
TLV ..... threshold limit value
TMA ..... trimethylamine
TML ..... tetramethyllead
TNRCC ..... Texas Natural Resource Conservation Commission
TNT ..... trinitrotoluene
TOA ..... trace organic analysis
TOC ..... total organic carbon
TOC ..... total organic compounds
TOX ..... tetradichloroxylene

TPTH . . . . . triphenyltin hydroxide
TPWD . . . . . Texas Parks and Wildlife Department
TRI . . . . . Toxics Release Inventory
TSCA . . . . . Toxic Substances Control Act
TSCC . . . . . Toxic Substances Coordinating Committee
TSDF . . . . . treatment, storage, and disposal facility
TUHC . . . . . total unburned hydrocarbons
TWA . . . . . time-weighted average

U

UEL . . . . . upper explosive limit
UFL . . . . . upper flammability limit
UIC . . . . . underground injection control
USC . . . . . United States Code
USCA . . . . . United States Code Annotated
USCG . . . . . United States Coast Guard
USDA . . . . . United States Department of Agriculture
USFS . . . . . United States Forest Service
USGS . . . . . United States Geological Survey
UV . . . . . ultraviolet

V

VAM . . . . . vinyl acetate monomer
VC . . . . . vinyl chloride
VCP . . . . . Voluntary Cleanup Program
VOC . . . . . volatile organic compound
VP . . . . . vapor pressure
VSS . . . . . volatile suspended solids

W

WBC . . . . . white blood cells
WHO . . . . . World Health Organization
WWTP . . . . . wastewater treatment plant

Y

YTD . . . . . year-to-date